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Calculation of Two-Dimensional Inlet Flow Fields by an Implicit Method Including Viscous Effects - Program Documentation and Test Case

Sedat Biringen and Oden J. McMillan

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1. INTRODUCTION

In this report we present the source listing of a computer code for calculating two-dimensional (planar) inlet flow fields in a supersonic free stream including viscous effects. A test case illustrating the application of this code to an inlet on an airbreathing missile is also presented. The inlet code and the associated mesh generation code have been documented in detail elsewhere (refs. 1, 2, and 3).

The problem formulation, mathematical framework, and the overall logic of the inlet program are presented in reference 1. The program makes use of an implicit algorithm (ref. 4) to solve the two-dimensional time-dependent Euler equations or the thin-layer Navier-Stokes equations. Reference 2 contains a discussion of the results that we obtained for various test cases. All the calculations were done for the inlet geometry shown in figure 1 for which the design Mach number is 3.5. For the test case presented herein, the inlet is considered to be located at $z = 4.5$ on the forebody of figure 2. The inflow boundary conditions for the inlet calculation are obtained from the code of reference 5 as applied to this forebody. In this report we present the input data, specification of initial and boundary conditions, operating instructions, and answer listings obtained from the Euler version of the two-dimensional inlet code for this test case. The method of transforming variables from the forebody code output to the inlet code input is also discussed. The complete listing of the inlet code is given in Appendix A.

During the course of this work we have also done some preliminary calculations for an inlet with uniform inflow boundary conditions and with the inclusion of viscous effects. The method of implementing uniform inflow boundary conditions is discussed in references 3 and 6. In the case of viscous calculations we have not attempted to make any changes to the inflow boundary conditions and hence these were implemented as in an inviscid flow.

2. SAMPLE PROBLEM: CALCULATION OF A TWO-DIMENSIONAL INLET WITH NONUNIFORM INFLOW BOUNDARY CONDITIONS

The capability of the inlet calculation procedure to calculate a realistic situation in which the inlet is immersed in the flow field produced by a forebody was tested by using nonuniform inflow boundary conditions. To this end the computer code detailed in reference 5 was used to generate a solution at $M_\infty = 3.5$ and at zero angle of attack for a forebody consisting of a 2.46 caliber von Karman ogive nose coupled to a cylindrical section (fig. 2). The ratio of body diameter is representative of a realistic configuration.

The solution at $X'/D = 4.5$ was used as the inflow boundary condition for the inlet calculation. On this boundary, the Mach number varied from 3.465 near the ramp to 3.192 at the farthest point from the ramp within the forebody shock. For reasons of economy we have located this boundary just downstream of the ramp leading edge. We have, therefore, assumed the first four points on this boundary away from the ramp surface to be downstream of an oblique shock with a constant 3.465 upstream Mach number. We do not expect this to introduce any significant error because the actual maximum Mach number variation over these four points was about 1%. For all the other points outside the

ramp shock, exact values from the forebody solution were used as described below.

The forebody code gives values of P/P_∞ and ρ/ρ_∞ on the body surface as well as profiles of P/P_{ref}, ρ/ρ_{ref}, U/M_∞, and V/M_∞ at specified streamwise locations. The inlet code requires as inflow boundary conditions values of P/P_∞, ρ/ρ_∞, U/U_∞, V/U_∞, V/U_∞, and e. For points other than the one on the body surface the desired form of pressure, P/P_∞, is calculated as

$$\frac{P}{P_\infty} = \frac{P}{P_{ref}} \cdot \left(\frac{P}{P_\infty}\right)_{surface} \cdot \left(\frac{P_{ref}}{P}\right)_{surface} \tag{1}$$

and likewise for density, ρ/ρ_∞. The desired forms of the velocities are found from the forebody output as

$$\frac{U}{U_\infty} = \frac{U}{M_\infty \cdot a} \ , \ \frac{V}{U_\infty} = \frac{V}{M_\infty \cdot a} \tag{2}$$

where M_∞ is the free-stream Mach number and "a" the local speed of sound. Finally, the energy is calculated from

$$e = \frac{P/P_\infty}{\gamma - 1} + \frac{1}{2}\,\rho/\rho_\infty \left[\left(\frac{u}{U_\infty}\right)^2 + \left(\frac{v}{U_\infty}\right)^2\right] \tag{3}$$

Formulae 1, 2, and 3 constitute the relations employed to convert the output of the forebody code to the input of the inlet code.

It should be noted that the mesh spacing in each program can be adjusted independently. Hence, in this work we have simply set the mesh sizes in each of the calculations (for the forebody and the inlet) equal to each other; we have not found it necessary to interpolate between the two meshes.

TABLE 1.- LIST OF INPUT CARDS

Card Number	Format	Variables	
1	815	NMAX:	Maximum number of time steps
		JMAX:	Maximum number of points along ξ
		KMAX:	Maximum number of points along η
		NP:	Number of time steps for calling SUB.MAP
	815	METH:	Flag for upwind differencing. If METH > 0, program skips upwind differencing
		IREAD:	Option for grid system. If IREAD > 0, reads grid from disc
		INVIS:	If INVIS > 0, program accounts for viscous effects; if INVIS = 0, the calculation is inviscid
2	715	IREGO:	If IREGO > 0, reads initial field from disc, otherwise starts from free-stream conditions
		ISTORE:	If ISTORE > 0, solution data stored on disc
		NF, NB:	variables used in airfoil calculations; set to zero
		JTAIL1:	First ξ-interior point, set to 1
		JTAIL2:	Last ξ-interior point, set to JMAX-1
		IPLOT:	Index for calling plot routine
3	315	IUPWIND:	If IUPWIND > 0, skips upwind differencing
		IOSCIL:	For stationary airfoil set IOSCIL = 0
		LAMIN:	If LAMIN > 0, calculates turbulent viscosity

TABLE 1.- CONCLUDED.

Card Number	Format	Variables
4	8F10.0	CNBR: Courant number; set to about 10
		DX: x-increment used in SUB.GRID. For grid read off the disc set DX = 0
		DY: y-increment, as above
		FSMACH: Free-stream Mach number
		SMU: Pseudo viscosity coefficient. Set to about 10 times the time step
	8F10.0	EPS: Used in SUB.GRID. Here set EPS = 0
		RE: Reynolds number
		ALPHA: Angle of attack
5	4F10.0	XOSCIL, VARA, VARB, VARC: Variables required for oscillating airfoil. For the inlet flow set to zero
6-18	4F10.5	Q_1, Q_2, Q_3, Q_4: Values of flow field variables in conservation form calculated from the forebody output via formulae 1-3
19	I5	Variable read by HARVIO for output, set to 0
20	I3	Variable read by HARVIO for output, set to 1
21	I3	Variable read by HARVIO for output, set to 1
22	2I5	Variable read by HARVIO for output, set to 1 and 0
23	2I2	LFAC: If LFAC = 1 outflow is subsonic, otherwise it is supersonic
		JAXI: If JAXI = 0 flow is plane 2-D, if JAXI = 1 flow is axisymmetric

(Note that axisymmetric option has been added only for the inviscid case. When calculating viscous flows, set JAXI = 0.)

2.1 Program Use and Operation

In this section we give a description of the input information required to run the test case described above. The initial field, as well as values of various constants are evaluated in SUB.INITIA. This subroutine also reads the input data except for the last card, which specifies geometry and type of duct-outflow boundary condition to be used. This last card is read by SUB.BC. The input data cards are listed in order in table 1.

The input cards used for the test case are shown in table 2. The number of points on the inflow boundary to be placed downstream of the ramp shock is prescribed in SUB.INITIA. This is done by changing the indices of the DO LOOP that ends with statement "31 CONTINUE". The first index of the DO LOOP parameter, J, is set to the ξ-index of the mesh point that corresponds to the first point on the inflow boundary (point A in fig. 3) whereas the second index specifies the ξ-index of the last grid point on the inflow boundary that is contained within the ramp shock (point B, fig. 3). Values for the variables at the mesh points A through B are prescribed in this subroutine using 2-D oblique shock theory by setting the value of the variable STHETA equal to the ramp shock angle in degrees.

2.2 Output Listing

The typical output of the program involves the following (described in more detail in ref. 2).

1. Tabulation of the input parameters.
2. Printout of the Jacobian matrix as calculated from the generated grid.
3. A map of the transformation Jacobian.
4. Printout of the flow field variables on the cowl surface.

TABLE II.- SAMPLE INPUT AND TEST CASE

```
1500   73   26   50    0    1    0
```

```
   1    1    0    0    2   72    0
   1    0    0
10.00     .01       .01       3.500     .1000     0.0       100000.   0.
1.0
.88       3.059     -.006     7.53
.886      3.098     -.008     7.66
.894      3.151     -.017     7.764
.895      3.176     -.028     7.836
.889      3.171     -.032     7.816
.894      3.195     -.036     7.88
.921      3.266     -.012     7.943
1.003     3.482     .076      8.569
1.052     3.605     .102      8.828
1.104     3.733     .149      9.2
1.221     4.013     .255      9.916
1.289     4.168     .318      10.32
1.348     4.303     .307      10.677
   0          T F F F F F F F F F F F F F F F F F F F F F F T T
  1
  1
   1    0    0 T T T T T T T T T T T T T T T T T T T T T T T
 5 0
```

GLOBE NO. 1 STANDARD FORM 5081

5. Free-stream quantities given by SUB.HARVIO.
6. Iteration index, physical time and time step.
7. Maximum ERRORS occuring within the field.
8. Values of LFAC (if LFAC > 1 outflow is subsonic) and JAXI.
9. Mass flow ratio evaluated at various ξ- stations.
10. Residual quantity; must converge to a small number such as $O(10^{-1})$ - $O(10^{-2})$.
11. Line-printer plot of pressure in the computational plane.
12. Line-printer plot of C_p on the ramp surface.
13. Line-printer plot of C_p on the cowl surface.
14. At time step equal to NMAX total output as furnished by HARVIO which includes listings of pressure, velocity components, energy, entropy, enthalpy, Mach number, contravariant velocity components and pressure coefficient.

Finally, the output contains the following quantities at each η station (referred to as the first index in the output listing) for each consecutive ξ station (referred to as the second index in the output listing): the Jacobian of transformation, x and y coordinates of each grid point, the metrics of transformation and the internal energy. A sample output listing is given in Appendix B.

REFERENCES

1. Biringen, S. and McMillan, O. J.: Calculation of Two-Dimensional Inlet Flow Fields by an Implicit Method Including Viscous Effects - User's Manual. NASA CR-3412, 1981.

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3. Biringen, S. and McMillan, O. J.: Calculation of Two-Dimensional Inlet Flow Fields in a Supersonic Free Stream by an Implicit Marching Code with Nonorthogonal Mesh Generation - User's Manual. NASA CR-3222, 1980.

4. Steger, J. L.: Implicit Finite Difference Simulation of Flow about Arbitrary Geometries with Application to Airfoils. AIAA Paper No. 77-665, June 1977.

5. Chaussee, D. S. and McMillan, O. J.: A Supersonic, Three-Dimensional Code for Flow Over Blunt Bodies - User's Manual. NASA CR-3223, Jan. 1980.

6. Biringen, S. and McMillan, O. J.: Calculation of Two-Dimensional Inlet Flow Fileds in a Supersonic Free Stream-Program Documentation and Test Cases. NASA CR-3221, Mar. 1980.

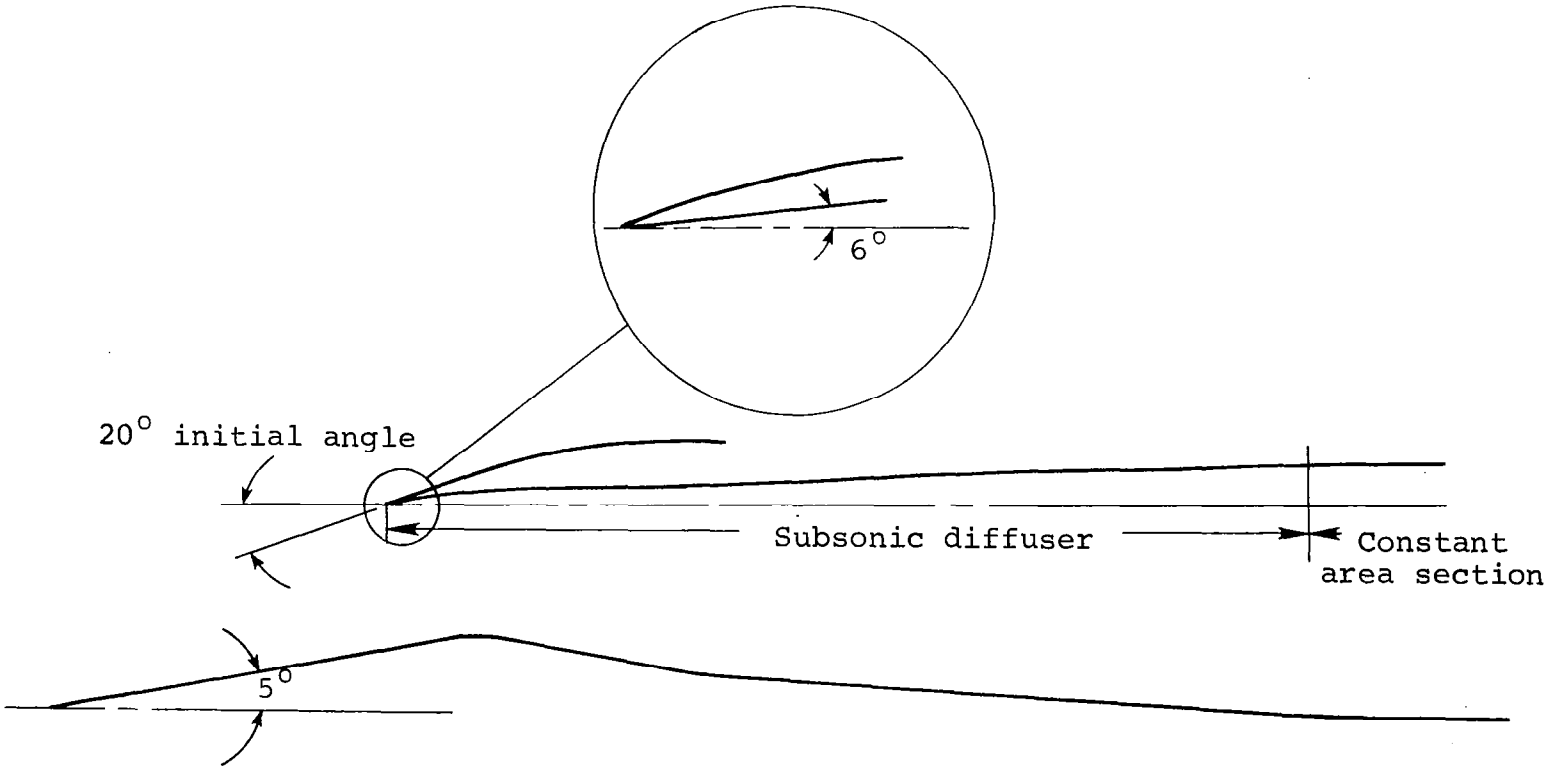
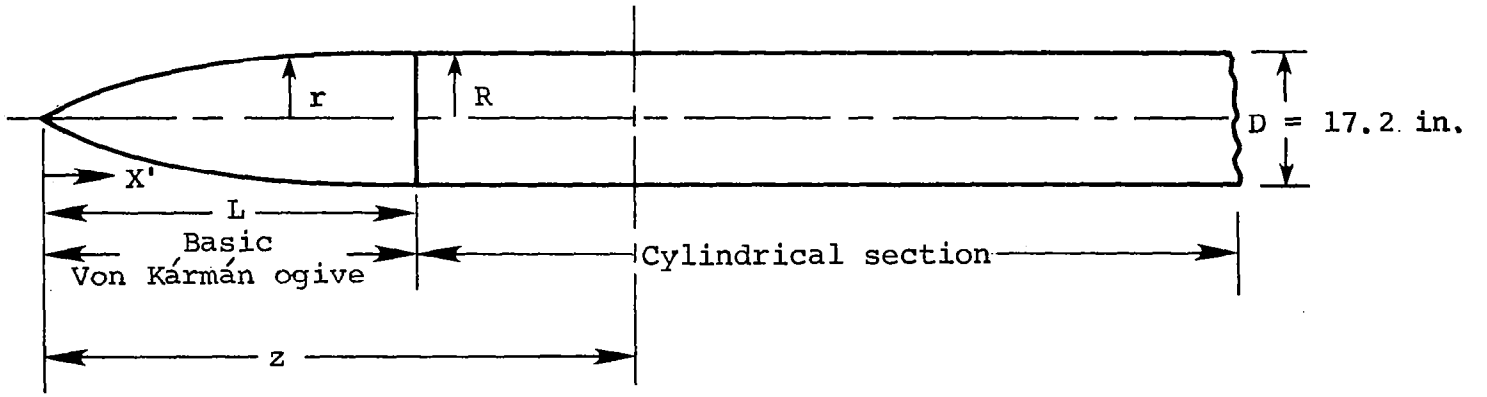


Figure 1.- Schematic of inlet geometry, design mach number 3.5.



Von Kármán Ogive Nose

$$\frac{r}{R} = \frac{1}{\sqrt{\pi}}\sqrt{\psi - \frac{1}{2}\text{SIN } 2\psi}$$

$$\psi = \cos^{-1}\left(1 - 2\frac{X'}{L}\right)$$

$$0 \leq \frac{X'}{D} \leq 2.46$$

F = Fineness ratio = 2.46

D = Maximum body diameter

Cylindrical Section

$$\frac{r}{D} = 0.5$$

$$Z = \left\{\begin{matrix}\text{Position of inlet} \\ \text{ramp leading edge}\end{matrix}\right\} = 4.5\ D$$

Figure 2.- Schematic of the forebody.

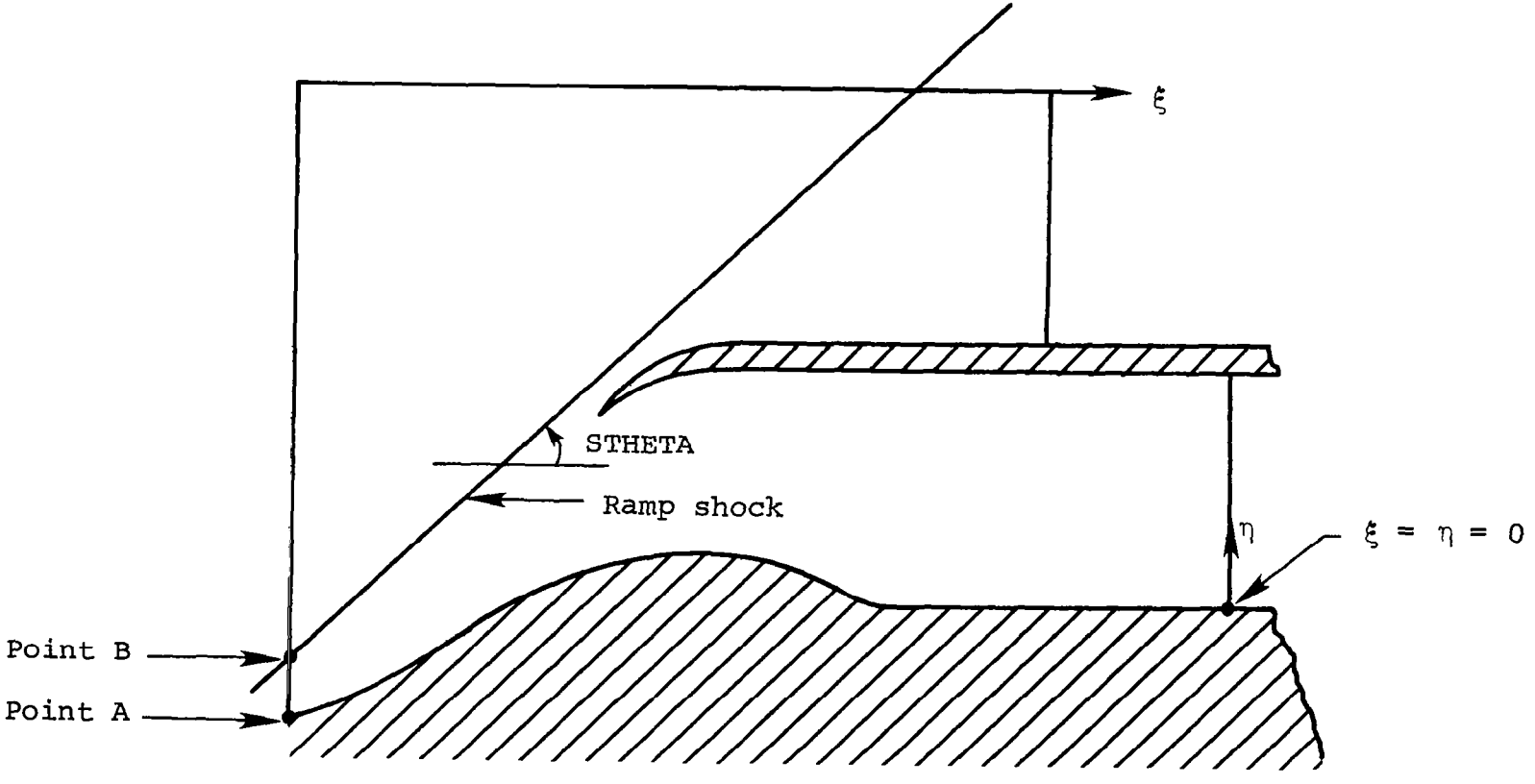


Figure 3.- Coordinate definition.

APPENDIX A

```
      PROGRAM CODE1(INPUT,OUTPUT,TAPE5=INPUT,TAPE6=OUTPUT,TAPE3,TAPE4,   IMPLI    2
     1 TAPE8,TAPE48)                                                     IMPLI    3
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD,  BASE     2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID         BASE     3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND       BASE     4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                      BASE     5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                       VARS     2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)    VARS     3
      LEVEL 2,X,Y,S,XIT,ETT                                              VARS     4
      COMMON/BTRID/ A(80,4,4),B(80,4,4),C(80,4,4),D(80,4,4),DU(80,4,4),  IMPLI    6
     1   F(80,4)                                                         IMPLI    7
      DIMENSION XP(78,20),YP(78,20),NR(20)                               INLET    1
      COMMON/ZAM/NTIME                                                   INLET    2
C                                                                        IMPLI    8
C   INITIALIZE VARIABLES                                                 IMPLI    9
C                                                                        IMPLI   10
      CALL INITIA                                                        IMPLI   11
      CALL EIGEN(0)                                                      INLET    3
C   PRINTER MAP OF JACOBIAN                                              IMPLI   12
      IF( IPLOT .LE.0) IPLOT = 4*NMAX                                    IMPLI   13
      CALL MAP(JMAX,KMAX,P)                                              IMPLI   14
      CALL OUTPT(1,0)                                                    IMPLI   15
      N =0.                                                              IMPLI   16
      NTIME=N                                                            INLET    4
C   CFD COMMON OUTPUT ROUTINE                                            IMPLI   17
      EINF = .5*FSMACH**2 + 1./( GAMMA*GAMI)                             IMPLI   18
      CALL HARVIO(Q(1,1,1),Q(1,1,2),Q(1,1,3),Q(1,1,4),P,X,Y,S,XY,XY(1,1  IMPLI   19
     12),S(1,1,2),XY(1,1,3),XY(1,1,4),1./GAMMA,1.,FSMACH,EINF,N*DT,DT    IMPLI   20
     2 ,GAMMA,JMAX,KMAX,78,2)                                            IMPLI   21
C   INITIALIZE PLOT ROUTINE                                              IMPLI   22
      IF(IPLOT .LE.NMAX) CALL READIN                                     IMPLI   23
C......THIS VARIABLE IS NOW CALCULATED IN EIGEN                          INLET    5
C     HD=0.5*DT                                                          INLET    6
C                                                                        IMPLI   25
C   MAIN LOOP                                                            IMPL.   26
      DO 10 N=1,NMAX                                                     IMPLI   27
      NTIME=N                                                            INLET    7
      CALL STEP                                                          IMPLI   28
C   OUTPUT DIAGNOSTICS, HERE TO END OF LOOP 10                           IMPLI   29
      IF(N-(N/25 )*25  .EQ. 0)CALL CLCD(0)                               INLET    8
      IF((N-(N/5)*5).EQ.0)CALL EIGEN(N)                                  SHB      1
      IF((N-(N/100)*100) .EQ. 0)GO TO 5                                  INLET   10
      JL = JMAX/2                                                        IMPLI   32
      SHEAR = ((Q(JL,2,2)/Q(JL,2,1)) -(Q(JL,1,2)/Q(JL,1,1)))*XY(JL,1,4)  IMPLI   33
      WRITE(6,601) ( Q(JL,2,M), M=1,4), SHEAR,RESID                      IMPLI   34
    5 CONTINUE                                                           INLET   11
      IF( N - (N/IPLOT)*IPLOT .EQ. 0) CALL CPPLOT                        IMPLI   35
      IF(N-(N/NP)*NP) 40,40,41                                           IMPLI   36
C                                                                        IMPLI   37
C   OPTION TO PRINTER MAP PRESSURE.  STORE IN JACOBIAN LOCATION,MAP,     IMPLI   38
C   AND RECOMPUTE JACOBIAN AND PLACE IN P ARRAY                          IMPLI   39
   40 DO 20 J = 1,JMAX                                                   IMPLI   40
      DO 20 K = 1,KMAX                                                   IMPLI   41
      PP=GAMMA*GAMI*(Q(J,K,4)-.5*(Q(J,K,2)**2+Q(J,K,3)**2)/Q(J,K,1))     IMPLI   42
   20 P(J,K) = PP*P(J,K)                                                 IMPLI   43
      CALL MAP(JMAX,KMAX,P)                                              IMPLI   44
      CALL XYMETS                                                        IMPLI   45
```

```
      CC=2./GAMMA/FSMACH**2                                             INLET    12
      IOPT=4                                                            INLET    13
      LWID=50                                                           INLET    14
      LENG=50                                                           INLET    15
      NDP=78                                                            INLET    16
      NC=1                                                              INLET    17
      J1=JTAIL1                                                         INLET    18
      J2=JTAIL2                                                         INLET    19
      J3=34                                                             INLET    20
      J3P1=J3+1                                                         INLET    21
      NR(1)=J3-J1+1                                                     INLET    22
      K=KMAX                                                            INLET    23
      I=0                                                               INLET    24
      DO 50 J=J1,J3                                                     INLET    25
      PP=P(J,K)*GAMMA*GAMI*(Q(J,K,4)-.5*(Q(J,K,2)**2+Q(J,K,3)**2)/      INLET    26
     <Q(J,K,1))                                                         INLET    27
      I=I+1                                                             INLET    28
      XP(I,1)=X(J,K)                                                    INLET    29
      YP(I,1)=CC*PP-CC                                                  INLET    30
   50 CONTINUE                                                          INLET    31
      CALL PLOTA2(XP,YP,IOPT,NR,NDP,NC,LWID,LENG)                       INLET    32
      K=1                                                               INLET    33
      NR(1)=J3P1-J1+1                                                   INLET    34
      I=0                                                               INLET    35
      DO 55 J=J1,J3P1                                                   INLET    36
      PP=P(J,K)*GAMMA*GAMI*(Q(J,K,4)-.5*(Q(J,K,2)**2+Q(J,K,3)**2)/      INLET    37
     <Q(J,K,1))                                                         INLET    38
      I=I+1                                                             INLET    39
      XP(I,1)=X(J,K)                                                    INLET    40
      YP(I,1)=CC*PP-CC                                                  INLET    41
   55 CONTINUE                                                          INLET    42
      CALL PLOTA2(XP,YP,IOPT,NR,NDP,NC,LWID,LENG)                       INLET    43
   41 CONTINUE                                                          IMPLI    46
  601 FORMAT(1H ,6E15.7)                                                IMPLI    47
   10 CONTINUE                                                          IMPLI    48
C   FINAL OUTPUT                                                        IMPLI    49
      N = NMAX                                                          IMPLI    50
      CALL HARVIO(Q(1,1,1),Q(1,1,2),Q(1,1,3),Q(1,1,4),P,X,Y,S,XY,XY(1,1, IMPLI    51
     12),S(1,1,2),XY(1,1,3),XY(1,1,4),1./GAMMA,1.,FSMACH,EINF,N*DT,DT   IMPLI    52
     2 ,GAMMA,JMAX,KMAX,78,2)                                           IMPLI    53
C                                                                       IMPLI    54
C  UNSCALE BY JACOBIAN                                                  IMPLI    55
      DO 45 N=1,4                                                       IMPLI    56
      DO 45 K=1,KMAX                                                    IMPLI    57
      DO 45 J=1,JMAX                                                    IMPLI    58
   45 Q(J,K,N) = Q(J,K,N)*P(J,K)                                        IMPLI    59
      CALL OUTPT(1,1)                                                   IMPLI    60
      CALL OUTPT(KMAX,1)                                                INLET    44
C   OPTIONAL STORE OF SOLUTION DATA                                     IMPLI    61
      IF( ISTORE.GT.0) WRITE(4)(((Q(J,K,M),J=1,JMAX),K=1,KMAX),M=1,4)   IMPLI    62
      CALL CLCD(1)                                                      IMPLI    63
C                                                                       IMPLI    64
      IF(IPLOT .LE.NMAX) CALL EOFTV                                     IMPLI    65
      STOP                                                              IMPLI    66
      END                                                               IMPLI    67
```

```
      SUBROUTINE INITIA                                                  INITIA     2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD,  BASE      2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID          BASE      3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND       BASE      4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                      BASE      5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                       VARS      2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)    VARS      3
      LEVEL 2,X,Y,S,XIT,ETT                                              VARS      4
      COMMON/ARRAY/ ALPX(80),ALPY(80),BETX(80),BETY(80)                  INITIA    5
      COMMON/UPWND/EB(80),EF(80)                                         INITIA    6
      DATA EB,EF/80*0.,80*0./                                            INITIA    7
C                                                                        INITIA    8
      PI=3.14159265                                                      INITIA    9
C****THIS SUBROUTINE READS FLOW PARAMETERS AND THE INITIAL FIELD.        INLET    45
C****FIRST INPUT CARD (7I5)                                              INLET    46
C     NMAX, MAX NO. OF TIME STEPS                                        INLET    47
C     JMAX, MAX NO. OF POINTS IN XI-DIRECTION                            INLET    48
C     KMAX, MAX NO. OF POINTS IN ETA DIRECTION                           INLET    49
C     NP, NUMBER OF TIME-STEPS FOR CALLING MAP ROUTINE                   INLET    50
C     METH, IF METH GREATER THAN 0, SKIPS UPWIND FIFF,                   INLET    51
C     IREAD, IF IREAD GR. THAN 0, READS GRID FROM DISC                   INLET    52
C     INVIS, IF INVIS GR. THAN 0 ACCOUNTS FOR VISCOUS EFFECTS            INLET    53
C****SECOND INPUT CARD (7I5)                                             INLET    54
C     IREGO, IF IREGO GR. THAN 0, READS INITIAL FIELD FROM DISC          INLET    55
C            OTHERWISE STARTS WITH FREE STERAM CONDITIONS.               INLET    56
C     ISTORE, IF ISTORE GR.THAN 0, SOLUTION DATA STORED ON DISC          INLET    57
C     NF,                                                                INLET    58
C     NB,                                                                INLET    59
C     JTAIL1, FIRST INTERIOR POINT, SET TO 1                             INLET    60
C     JTAIL2, LAST XI-INTERIOR POINT , SET TO JMAX-1                     INLET    61
C     IPLOT, INDEX FOR CALLING CPPLOT ROUTINE                            INLET    62
C****THIRD INPUT CARD (3I5)                                              INLET    63
C     IUPWIND, IF IUPWIND GR.THAN 0,SKIPS UPWIND DIFFERENCING            INLET    64
C     IOSCIL, FOR STATIONARY AIRFOIL SET TO 0                            INLET    65
C     LAMIN, IF LAMIN GR. THAN ZERO OR LAMIN=0, CALCULATES TURB. VISCOSIT INLET    66
C****FOURTH DATA CARD (8F10.0)                                           INLET    67
C     CNBR, COURANT NO. SET TO ABOUT 10.                                 INLET    68
C     DX, USED IN GRID SUBROUTINE IF GRID READ FROM DISC SET DX=0        INLET    69
C     DY, USED IN GRID SUBROUTINE, AS ABOVE                              INLET    70
C     FSMACH, FREE STREAM MACH NUMBER                                    INLET    71
C     SMU PSEUDO VISCOSITY COEFFICIENT, FOR CNBR ABOUT 10 SET TO 0.1     INLET    72
C     EPS, USED IN GRID SUBROUTINE, SET TO ZERO.                         INLET    73
C     RE, REYNOLDS NUMBER                                                INLET    74
C     ALPHA, ANGLE OF ATTACK                                             INLET    75
C****FIFTH DATA CARD (8F10.0)                                            INLET    76
C     XOSCIL  VARA,VARB,VARC , VARIABLES REQUIRED FOR OSCILLATING AIRFOIL INLET    77
C              SET TO ZERO                                               INLET    78
      READ(5,100) NMAX,JMAX,KMAX,NP,METH,IREAD,INVIS                     INITIA   10
      READ(5,100) IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IPLOT                 INITIA   11
      READ(5,100) IUPWND,IOSCIL,LAMIN                                    INITIA   12
      READ(5,101)CNBR,DX,DY,FSMACH,SMU,EPS,RE,ALPHA                      INLET    79
      READ(5,101) XOSCIL,VARA,VARB,VARC                                  INITIA   14
C     STHETA IS SHOCK ANGLE IN DEGREES.                                  INLET    80
      STHETA=20.                                                         SHB       2
      NNE=1                                                              SHB       3
      IF( FSMACH .GT.1.0) IUPWND = 1                                     INITIA   15
  100 FORMAT(8I5)                                                        INITIA   16
```

```
      101 FORMAT(8F10.0)                                                    INITIA     17
          WRITE(6,600) NMAX,JMAX,KMAX,NP,METH,IREAD,INVIS                   INITIA     18
60    600 FORMAT(1H1, 39H NMAX,JMAX, KMAX,NP,METH,IREAD,INVIS       8I6)     INITIA     19
          WRITE(6,601) IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IPLOT               INITIA     20
      601 FORMAT(1HO, 39H IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IPLOT      8I6)   INITIA     21
          WRITE(6,603) IUPWND,IOSCIL,LAMIN                                  INITIA     22
      603 FORMAT(1HO, 22H IUPWND,IOSCIL,LAMIN      ,8I6)                    INITIA     23
65        WRITE(6,602)CNBR,FSMACH,SMU,EPS,RE,ALPHA                          INLET      82
      602 FORMAT(1HO,36H CNBR,FSMACH,SMU,EPS,RE,ALPHA        ,/,8F15.10)    INLET      83
          WRITE(6,604) XOSCIL                                               INITIA     26
      604 FORMAT(1HO  20H XOSCIL                  ,/,4E15.6)                INITIA     27
      C                                                                     INITIA     28
70    C      COMPUTE VARIOUS CONSTANTS                                      INITIA     29
      C      RESCALE RE FOR SPEED OF SOUND REFERENCE NUMBER                 INITIA     30
          RE = RE/FSMACH                                                    INITIA     31
          GAMMA = 1.4                                                       INITIA     32
          GAMI = GAMMA -1.                                                  INITIA     33
75        RESID = 0.                                                        INITIA     35
      C    SMUIM IS THE IMPLICIT PORTION OF PSEUDO VISCOSITY                INLET      84
          SMUIM=3.2*SMU                                                     INLET      85
          JM = JMAX-1                                                       INITIA     37
          KM = KMAX-1                                                       INITIA     38
80        COSANG = COS( PI*ALPHA/180.)                                      INITIA     39
          SINANG = SIN(PI*ALPHA/180.)                                       INITIA     40
      C     LOAD FREE STREAM AT ANGLE OF ATTACK ALPHA                       INITIA     41
          DO 20 J=1,JMAX                                                    INITIA     42
          DO 20 K=1,KMAX                                                    INITIA     43
85        Q(J,K,1) = 1.                                                     INITIA     44
          Q(J,K,2) = FSMACH*COSANG                                          INITIA     45
          Q(J,K,3) = FSMACH*SINANG                                          INITIA     46
          Q(J,K,4) = 1./(GAMMA*GAMI) + .5*FSMACH**2                         INITIA     47
      C      ZERO OUT XIT AND ETAT                                          INITIA     48
90        XIT(J,K) = 0.                                                     INITIA     49
          ETT(J,K) = 0.                                                     INITIA     50
          DO 21 N=1,4                                                       INITIA     51
       21 S(J,K,N) = 0.                                                     INITIA     52
       20 CONTINUE                                                          INITIA     53
95    C    INITIALIZE THE FIELD BY CAPTURING THE FIRST SHOCKAT  THE RAMP    INLET      86
      C    VALUES FROM 2-D WEDGE THEORY                                     INLET      87
      C    CALCULATION OF FIELD VARIABLES                                   INLET      88
          STHETA=STHETA*3.1415926/180.                                      INLET      89
             FAC1=FSMACH*FSMACH*(SIN(STHETA)**2)                            INLET      90
100       FAC2=(FAC1-1.)*5./(6.*FSMACH**2)                                  INLET      91
          Q1=(1.-FAC2)*FSMACH                                               INLET      92
          Q2=(FAC2*COS(STHETA)/SIN(STHETA))*FSMACH                          INLET      93
          Q3=6.*FAC1/(FAC1+5.)                                              INLET      94
          Q4=(7.*FAC1-1.)/6.                                                INLET      95
105       Q4=Q4*.71429/.4                                                   INLET      96
          FAC3=Q1*Q1+Q2*Q2                                                  INLET      97
          FAC3=FAC3*Q3*.5                                                   INLET      98
          Q4=Q4+FAC3                                                        INLET      99
          K=KMAX                                                            INLET     100
110       DO 31 J=53,56                                                     SHB         4
          Q(J,K,1)=Q3                                                       INLET     102
          Q(J,K,2)=Q1*Q3                                                    INLET     103
          Q(J,K,3)=Q2*Q3                                                    INLET     104
          Q(J,K,4)=Q4                                                       INLET     105
```

```
SUBROUTINE INITIA     76/76   OPT=2 TRACE                    FTN 4.6+460-3      09/12/80  16.53.00       PAGE     3

   31 CONTINUE                                                                  INLET     106
      Q5=Q1*Q3                                                                  INLET     107
      Q6=Q2*Q3                                                                  INLET     108
      WRITE(6,50)Q5,Q6,Q3,Q4                                                    INLET     109
   50 FORMAT(10X,*U,V,RHO,EN*,4E12.5)                                           INLET     110
*  C                                                                            INITIA     54
C      RESTART CAPABILITY... READ VARIABLES FROM DISC, OVERLOADING FREE         INITIA     55
C      STREAM. ALL OTHER QUANTITIES COMPUTED AS IF INITIAL START UP             INITIA     56
      IF( IREGO .GT.0) READ(3) (((Q(J,K,M),J=1,JMAX),K=1,KMAX),M=1,4)           INITIA     57
      CALL GRID(IREAD,DX,DY)                                                    INITIA     58
      CALL XYMETS                                                               INITIA     59
C                                                                               INITIA     60
C      SCALE VARIABLES BY JACOBIAN STORED BY XYMETS IN P(J,K)                   INITIA     61
      DO 10 N=1,4                                                               INITIA     62
      DO 10 K=1,KMAX                                                            INITIA     63
      DO 10 J=1,JMAX                                                            INITIA     64
   10 Q(J,K,N) = Q(J,K,N)/P(J,K)                                                INITIA     65
C                                                                               INITIA     66
      WRITE(6,610) ( Y(1,K), K=1,KMAX)                                          INITIA     67
  610 FORMAT(1H , 6F13.5)                                                       INITIA     68
      DO 40 J=1,JMAX                                                            INITIA     69
      ALPX(J) = 0.                                                              INITIA     70
   40 BETX(J) = 1.                                                              INITIA     71
      DO 42 K=1,KMAX                                                            INITIA     72
      ALPY(K) = 0.                                                              INITIA     73
   42 BETY(K) = 1.                                                              INITIA     74
      RETURN                                                                    INITIA     75
      END                                                                       INITIA     76
```

*Note that for nonuniform initial conditions the following statements must be inserted immediately after statement label 50:

```
      DO 32 J=INDEX1, INDEX2
   32 READ(5,102)(Q(J,KMAX,LL),LL=1,4)
  102 FORMAT(4F10.5)
```

In the sample problem INDEX1=57 INDEX2=69

```
      SUBROUTINE GRID( IREAD,DX,DY)                                      GRID      2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD,  BASE      2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID          BASE      3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND       BASE      4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                      BASE      5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                       VARS      2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)    VARS      3
      LEVEL 2,X,Y,S,XIT,ETT                                              VARS      4
C                                                                        GRID      5
C     EITHER COMPUTE A SIMPLE STRETCHED GRID FOR FLAT PLATE, OR          GRID      6
C      IF IREAD GT. 0, READ GENERAL GRID OFF FROM DISC STORE             GRID      7
C                                                                        GRID      8
C   WEDGE FLOW                                                           GRID      9
      ALP =15.                                                           GRID     10
      TANT =  TAN(ALP*PI/180.)                                           GRID     11
      IF( IREAD .GT.0) GO TO 19                                          GRID     12
      DO 9 K=1,KMAX                                                      GRID     13
      X(1,K) = 0.                                                        GRID     14
      DO 10 J=2,JMAX                                                     GRID     15
   10 X(J,K) = X(J-1,K) + DX                                             GRID     16
    9 CONTINUE                                                           GRID     17
      DO 12 J=1,JMAX                                                     GRID     18
      Y(J,1) = 0.                                                        GRID     19
      JWEDG = JMAX/2                                                     GRID     20
      IF( J.GT.JWEDG) Y(J,1) = Y(J-1,1) + DX*TANT                        GRID     21
      DS = DY                                                            GRID     22
      EPP = EPS                                                          GRID     23
      DO 13 K=2,KMAX                                                     GRID     24
      KCMAX = .8*KMAX                                                    GRID     25
      IF( K.GT.KCMAX) EPP = 0.                                           GRID     26
      DS = DS*( 1. +EPP*( SIN((K-2)*PI/(KCMAX-1))))                      GRID     27
   13 Y(J,K) = Y(J,K-1) + DS                                             GRID     28
   12 CONTINUE                                                           GRID     29
      GO TO 20                                                           GRID     30
C                                                                        GRID     31
   19 READ(8)((X(J,K),J=1,JMAX),K=1,KMAX),((Y(J,K),J=1,JMAX),K=1,KMAX)   GRID     32
   20 CONTINUE                                                           GRID     33
      RETURN                                                             GRID     34
      END                                                                GRID     35
```

```
      SUBROUTINE OUTPT(K,NSCAL)                                          OUTPT      2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD,  BASE       2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID          BASE       3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND      BASE       4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                     BASE       5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                       VARS       2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)    VARS       3
      LEVEL 2,X,Y,S,XIT,ETT                                              VARS       4
C****OUTPUTS THE NONDIM. VARIABLES AND P/PST AT K                        INLET    111
      WRITE(6,600) K                                                     OUTPT      6
  600 FORMAT(1H1, 32H J,X,Y,(Q ,N=1,4), P/PST AT K =       ,I5)          OUTPT      7
      PT = (1.+.5*GAMI*FSMACH**2)                                        OUTPT      8
      GG = GAMMA/GAMI                                                    OUTPT      9
      PT = 1./(PT**GG)                                                   OUTPT     10
      DO 10 J=1,JMAX                                                     OUTPT     11
      PP= GAMMA*GAMI*( Q(J,K,4) -.5*(Q(J,K,2)**2+Q(J,K,3)**2)/Q(J,K,1))  OUTPT     12
      PP = PP*PT                                                         OUTPT     13
      RD = 1.                                                            OUTPT     14
      IF( NSCAL) 15,15,16                                                OUTPT     15
   15 RD = P(J,K)                                                        OUTPT     16
   16 CONTINUE                                                           OUTPT     17
      Q1 = Q(J,K,1)*RD                                                   OUTPT     18
      Q2 = Q(J,K,2)*RD                                                   OUTPT     19
      Q3 = Q(J,K,3)*RD                                                   OUTPT     20
      Q4 = Q(J,K,4)*RD                                                   OUTPT     21
      PP = PP*RD                                                         OUTPT     22
      WRITE(6,601) J,X(J,K),Y(J,K),Q1,Q2,Q3,Q4,PP                        OUTPT     23
  601 FORMAT(1H , I5,7E13.5)                                             OUTPT     24
   10 CONTINUE                                                           OUTPT     25
      RETURN                                                             OUTPT     26
      END                                                                OUTPT     27
```

```
      SUBROUTINE XYMETS                                                 XYMETS     2
      COMMON/ZAM/NTIME                                                  INLET    112
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD, BASE     2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID         BASE     3
     2. CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND     BASE     4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                     BASE     5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                      VARS     2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)   VARS     3
      LEVEL 2,X,Y,S,XIT,ETT                                             VARS     4
C****THIS SUBROUTINE CALCULATES THE METRIC COEFFICIENTS ACCORDING TO     INLET    113
C     THE GRID SYSTEM,FORMS THE JACOBIAN.                               INLET    114
C     XY4=DX/DXI, XY3=DY/DXI                                            INLET    115
      DO 11 K=1,KMAX                                                    XYMETS     6
      DO 10 J=2,JM                                                      XYMETS     7
      XY(J,K,4) = ( X(J+1,K) - X(J-1,K))*.5                             XYMETS     8
   10 XY(J,K,3) = ( Y(J+1,K) - Y(J-1,K))*.5                             XYMETS     9
      XY(1,K,4) = .5*( -3.*X(1,K) +4.*X(2,K) - X(3,K))                  XYMETS    10
      XY(1,K,3) = .5*( -3.*Y(1,K) +4.*Y(2,K) - Y(3,K))                  XYMETS    11
      XY(JMAX,K,4) = ( 3.*X(JMAX,K) -4.*X(JM,K)+X(JM-1,K))*.5           XYMETS    12
      XY(JMAX,K,3) = (3.*Y(JMAX,K) -4.*Y(JM,K) + Y(JM-1,K))*.5          XYMETS    13
   11 CONTINUE                                                          XYMETS    14
C     XY2=DX/DETA, XY1=DY/DETA                                          INLET    116
      DO 21 J=1,JMAX                                                    XYMETS    16
      DO 20 K=2,KM                                                      XYMETS    17
      XY(J,K,2) = ( X(J,K+1) - X(J,K-1))*.5                             XYMETS    18
   20 XY(J,K,1) = ( Y(J,K+1) - Y(J,K-1))*.5                             XYMETS    19
      XY(J,1,2) = ( -3.*X(J,1) +4.*X(J,2) - X(J,3))*.5                  XYMETS    20
      XY(J,1,1) = ( -3.*Y(J,1) +4.*Y(J,2) -Y(J,3))*.5                   XYMETS    21
      XY(J,KMAX,2) = ( 3.*X(J,KMAX) -4.*X(J,KM) +X(J,KM-1))*.5          XYMETS    22
      XY(J,KMAX,1) = ( 3.*Y(J,KMAX) -4.*Y(J,KM) + Y(J,KM-1))*.5         XYMETS    23
   21 CONTINUE                                                          XYMETS    24
C    A SPATIALLY AVERAGED JACOBIAN IS NECESSARY FOR TIME ACCURATE FLOW  XYMETS    25
      DO 30 J=1,JMAX                                                    XYMETS    26
      JP = J + 1                                                        XYMETS    27
      JR = J -1                                                         XYMETS    28
      IF( J .EQ. 1 .OR. J .EQ. JMAX) JP = JR = J                        XYMETS    29
      DO 30 K=1,KMAX                                                    XYMETS    30
      KP = K +1                                                         XYMETS    31
      KR = K -1                                                         XYMETS    32
      IF( K .EQ. 1 .OR. K .EQ. KMAX) KP = KR = K                        XYMETS    33
      DINV = 4./( (XY(J,KP,4) + XY(J,KR,4))*( XY(JP,K,1)+XY(JR,K,1))    XYMETS    34
     1  - ( XY(J,KP,3)+ XY(J,KR,3))*(XY(JP,K,2)+ XY(JR,K,2)))           XYMETS    35
C.....THIS IS A NON SPATIALLY AVERAGED JACOBIAN SINCE SOLUTION  IS TO B INLET    117
C       A STEADY STATE ANSWER                                           INLET    118
      DINV=1./(XY(J,K,4)*XY(J,K,1)-XY(J,K,2)*XY(J,K,3))                 INLET    119
      P(J,K) = DINV                                                     XYMETS    36
   30 CONTINUE                                                          XYMETS    37
      DO 32 J=1,JMAX                                                    XYMETS    33
      DO 32 K=1,KMAX                                                    XYMETS    39
      DINV = P(J,K)                                                     XYMETS    40
C P(J,K) IS THE JACOBIAN, XY1=DXI/DX, XY2=DXI/DY,                       INLET    120
C     XY3=DETA/DX, XY4=DETA/DY                                          INLET    121
      XY(J,K,1) = XY(J,K,1)*DINV                                        XYMETS    42
      XY(J,K,2) = - XY(J,K,2)*DINV                                      XYMETS    43
      XY(J,K,3) = - XY(J,K,3)*DINV                                      XYMETS    44
   32 XY(J,K,4) = XY(J,K,4)*DINV                                        XYMETS    45
      IF(NTIME.GT.1)GO TO 63                                            INLET    122
```

```
                      DO 64 K=1,KMAX                                    INLET    123
                      WRITE(6,101)K                                     INLET    124
60                    WRITE(6,102)(P(J,K),J=1,JMAX)                     INLET    125
                   64 CONTINUE                                          INLET    126
                   63 CONTINUE                                          INLET    127
                  101 FORMAT(1X,*K=*,I5)                                INLET    128
                  102 FORMAT(1X,8E12.5)                                 INLET    129
65                  3 RETURN                                            XYMETS    46
                      END                                               XYMETS    47
```

```
      SUBROUTINE SMOOTH                                                 SMOOTH     2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD, BASE       2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID          BASE       3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND      BASE       4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                     BASE       5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                      VARS       2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)   VARS       3
      LEVEL 2,X,Y,S,XIT,ETT                                             VARS       4
      COMMON/BTRID/ A(80,4,4),B(80,4,4),C(80,4,4),D(80,4,4),DU(80,4,4), SMOOTH     5
     1   F(80,4)                                                        SMOOTH     6
      COMMON/UPWND/ EB(80),EF(80)                                       SMOOTH     7
C***THIS SUBROUTINE ADDS FOURTH -ORDER SMOOTHING IMPLICITLY TO THE       INLET    130
C    RHS, ADJACENT TO BOUNDARIES SECOND SECOND ORDER SMOOTHING           INLET    131
C    IS ADDED EXPLICITLY WITH 0.5 OF SMU.                               INLET    132
C   FOURTH ORDER SMOOTHING, ADDED EXPLICITLY TO RHS                     SMOOTH     9
C   SECONT ORDER AT FRINGES WITH .5 OF SMU                              SMOOTH    10
      JMM = JM -1                                                       SMOOTH    11
      KMM = KM-1                                                        SMOOTH    12
      SDT = SMU*DT                                                      SMOOTH    13
C      XI DIRECTION SMOOTHING                                           SMOOTH    14
      DO 40 K=2,KM                                                      SMOOTH    15
      IF( IUPWND.GT.0 ) GO TO 49                                        SMOOTH    16
      DO 43 J=1,JMAX                                                    SMOOTH    17
      RINV = 1./Q(J,K,1)                                                SMOOTH    18
      U = XIT(J,K) + RINV*( XY(J,K,1)*Q(J,K,2)+ XY(J,K,2)*Q(J,K,3))     SMOOTH    19
      PP= GAMI*( Q(J,K,4) -.5*(Q(J,K,2)**2+Q(J,K,3)**2)*RINV)           SMOOTH    20
      CC = SQRT( GAMMA*PP*( XY(J,K,1)**2+XY(J,K,2)**2)*RINV)            SMOOTH    21
      UMC = U - CC                                                      SMOOTH    22
      UPC = U + CC                                                      SMOOTH    23
      EB(J) = .5 + SIGN(.5,UMC)                                         SMOOTH    24
      EF(J) = .5 - SIGN(.5,UPC)                                         SMOOTH    25
   43 CONTINUE                                                          SMOOTH    26
C     ADJUST SHOCK POINT OPERATOR                                       SMOOTH    27
      CALL SHKOP(2,JM)                                                  SMOOTH    28
   49 CONTINUE                                                          SMOOTH    29
      DO 42 N=1,4                                                       SMOOTH    30
      DO 41 J=1,JMAX                                                    SMOOTH    31
   41 Z(J) = P(J,K)*Q(J,K,N)                                            SMOOTH    32
      J = 2                                                             SMOOTH    33
      S(J,K,N) = S(J,K,N) -.5*SMU*(-Z(J-1) +2.*Z(J) -Z(J+1))/P(J,K)     SMOOTH    34
      J = JM                                                            SMOOTH    35
      S(J,K,N)=S(J,K,N)-SMU*(-Z(J-1)+2.*Z(J)-Z(J+1))/P(J,K)             SHB        5
      DO 42 J=3,JMM                                                     SMOOTH    37
      EP = 1. - EB(J) - EF(J+1)                                         SMOOTH    38
      EM = 1. - EB(J-1) - EF(J)                                         SMOOTH    39
      S(J,K,N) = S(J,K,N) - SMU*( EP*Z(J+2) - (3.*EP + EM)*Z(J+1) +     SMOOTH    40
     1  3.*(EP +EM)*Z(J) -(EP +3.*EM)*Z(J-1) + EM*Z(J-2)) /P(J,K)       SMOOTH    41
   42 CONTINUE                                                          SMOOTH    42
   40 CONTINUE                                                          SMOOTH    43
C                                                                       SMOOTH    44
C   ETA DIRECTION SMOOTHING                                             SMOOTH    45
      DO 50 J=2,JM                                                      SMOOTH    46
      DO 51 K=1,KMAX                                                    SMOOTH    47
   51 Z(K) = P(J,K)                                                     SMOOTH    48
      DO 52 N=1,4                                                       SMOOTH    49
       K = KM                                                           SMOOTH    50
      S(J,K,N)=S(J,K,N)-SMU*(-Z(K-1)*Q(J,K-1,N)+2.*Z(K)*Q(J,K,N)        SHB        6
```

```
                1 - Z(K+1)*Q(J,K+1,N))/Z(K)                                      SMOOTH     52
                 K = 2                                                           SMOOTH     53
60               S(J,K,N) = S(J,K,N) -SMU*.5*( -Z(K-1)*Q(J,K-1,N) +2.*Z(K)*Q(J,K,N) SMOOTH     54
                1 - Z(K+1)*Q(J,K+1,N))/Z(K)                                      SMOOTH     55
                 DO 52 K=3,KMM                                                   SMOOTH     56
              52 S(J,K,N) = S(J,K,N) -SMU*( Z(K-2)*Q(J,K-2,N) +Z(K+2)*Q(J,K+2,N) SMOOTH     57
                1  +6.*Z(K)*Q(J,K,N) -4.*( Z(K-1)*Q(J,K-1,N) +Z(K+1)*Q(J,K+1,N)))  SMOOTH     58
65              2 / Z(K)                                                         SMOOTH     59
              50 CONTINUE                                                        SMOOTH     60
                 RETURN                                                          SMOOTH     61
                 END                                                             SMOOTH     62
```

```
      SUBROUTINE BC                                                     BC        2
      COMMON/ZAMPA/NTSG                                                 INLET   133
      COMMON/ZAM/NTIME                                                  INLET   134
      COMMON/IKI/JINPL                                                  INLET   135
      COMMON/BIR/NCRIT                                                  INLET   136
      COMMON/FINN/VV(50)                                                INLET   137
      LEVEL 2,VV                                                        INLET   138
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD, BASE      2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID          BASE      3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND      BASE      4
     3 , LAMIN,MUIM,VARA,VARB,VARC                                      BASE      5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                      VARS      2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)   VARS      3
      LEVEL 2,X,Y,S,XIT,ETT                                             VARS      4
      COMMON/AXI/JAXI                                                   INLET   139
      DIMENSION DETAS(80),DETAS1(80),A(80),B(80),C(80),F(80)            INLET   140
      DIMENSION UD(3,80),VD(3,80),EN(3,80),PPB(3,80),DEN(3,80)          INLET   141
      DIMENSION VV(50)                                                  INLET   142
      DATA INIT,NN/0,0/                                                 BC        6
C****THIS SUBROUTNE EVALUATES BOUNDARY CONDITIONS AT THE SOLID WALLS AND INLET   143
C     INLOW-OUTFLOW SECTIONS                                            INLET   144
C     SET JINPL TO THE J-INDEX CORRESPONDING TO FIRST MESH ON RAMP      INLET   145
      IF( INIT .GT. 0) GO TO 9                                          BC        7
      READ(5,101)LFAC,JAXI                                              INLET   146
  101 FORMAT(2I2)                                                       INLET   147
C     IF LFAC=1 OUTFLOW IS SUBSONIC OTHERWISE SUPERSONIC                INLET   148
      WRITE(6,4)LFAC,JAXI                                               INLET   149
    4 FORMAT(1X,*LFAC=*,I2,*JAXI=*,I2)                                  INLET   150
C     IF JAXI =1 FLOW IS AXISYMM. IF JAXI=0 PLANE FLOW                  INLET   151
      JINPL=52                                                          SHB       7
      RINF=1.0                                                          INLET   153
      PINF=1./GAMMA                                                     INLET   154
      QINF=FSMACH                                                       INLET   155
      HTINF=GAMMA/GAMI*PINF/RINF+QINF**2*0.5                            INLET   156
      INIT = 1                                                          BC        8
      J1 = JTAIL1                                                       BC        9
      J2 = JTAIL2                                                       BC       10
      KMAXM1=KMAX-1                                                     SHB       8
      J3=JINPL                                                          INLET   157
      J1P = J1 + 1                                                      BC       11
      J2R = J2 -1                                                       BC       12
      J1R = J1 -1                                                       BC       13
      J2P = J2 +1                                                       BC       14
      K = 1                                                             BC       15
      DO 90 J=J1,J2                                                     BC       16
      DETAS(J) = ETT(J,K)                                               BC       17
      DETAS1(J)=ETT(J,KMAX)                                             INLET   158
   90 CONTINUE                                                          BC       18
C    FOSO =0. FOR FIRST ORDER AND =1. FOR SECOND ORDER ACCURACY         BC       19
C      IN THE EVALUATION OF DPDETA                                      BC       20
      FOSO = 0.                                                         BC       21
C                                                                       BC       22
    9 NN = NN +1                                                        BC       23
C     BODY INFLATED OVER 150 ITERATIONS                                 INLET   159
      T = ( NN -1.)/36.                                                 BC       24
      IF( T .GT.1.) T = 1.                                              BC       25
      SCAL = (10. -15.*T + 6.*T*T) *T**3                                BC       26
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      IF( IREGO .GT.0) SCAL=1.                                          BC        27
      SCAL1=SCAL                                                        INLET    160
C                                                                       INLET    161
C   NCRIT IS NTIME WHEN SHOCK IS AT LIP IN SUBCRIT. OUTFLOW             INLET    162
      NNE=1                                                             SHB        9
      NCRIT=1                                                           SHB       10
C                                                                       INLET    164
      IF(NN.LT.NNE)GO TO 60                                             INLET    166
      T=(NN-NNE)/40.                                                    INLET    167
      IF(T.GT.1.)T=1.                                                   INLET    168
      SCAL=(10.-15.*T+6.*T*T)*T**3                                      INLET    169
C                                                                       BC        28
C  OBTAIN U AND V ON BODY VIA TANGENCY AND EXTRAPOLATION OF UCAP        BC        29
C       THIS SECTION FOR COWL WALLS                                     INLET    171
      DO 52 J=J1, J2                                                    BC        31
      UEXT = 2.*( XIT(J,2) +XY(J,2,1)*Q(J,2,2)/Q(J,2,1) + XY(J,2,2)*    BC        32
     1  Q(J,2,3)/Q(J,2,1))  -( XIT(J,3) + XY(J,3,1)*Q(J,3,2)/Q(J,3,1)   BC        33
     2  + XY(J,3,2) *Q(J,3,3)/Q(J,3,1))                                 BC        34
      IF( INVIS .GT. 0) UEXT = 0.                                       BC        35
      U1 = ( XY(J,1,4)*(UEXT - XIT(J,1)) + XY(J,1,2)*ETT(J,1))/P(J,1)   BC        36
      V1 = ( - XY(J,1,3)*( UEXT - XIT(J,1)) -XY(J,1,1)*ETT(J,1))/P(J,1) BC        37
      U1 = ( 1. - SCAL)*Q(J,1,2)/Q(J,1,1) + SCAL*U1                     BC        38
      V1 = ( 1. - SCAL)*Q(J,1,3)/Q(J,1,1) + SCAL*V1                     BC        39
C      Q2 AND Q3 NOW SATIFY TANGENCY... INDEPENTLY OF WHETHER           BC        40
C                    DENSITY IS LAGGED                                  BC        41
      Q(J,1,2) = U1*Q(J,1,1)                                            BC        42
      Q(J,1,3) = V1*Q(J,1,1)                                            BC        43
   52 CONTINUE                                                          BC        44
   60 CONTINUE                                                          INLET    172
      K=1                                                               INLET    173
      SCAL=SCAL1                                                        INLET    174
      IF(NN.GE.NNE)GO TO 61                                             INLET    175
      DO 62 I=1,4                                                       INLET    176
      DO 67 J=J1,J2                                                     INLET    177
      Q(J,K,I)=Q(J,K+1,I)*P(J,K+1)/P(J,K)                               INLET    178
   67 CONTINUE                                                          INLET    179
   62 CONTINUE                                                          INLET    180
   61 CONTINUE                                                          INLET    181
C                                                                       INLET    182
C       THIS SECTION FOR BODY + RAMP WALLS                              INLET    183
      K=KMAX                                                            INLET    184
      KMM=KM-1                                                          INLET    185
      DO 53 J=J1,J3                                                     INLET    186
      UEXT=2.*(XIT(J,KM)+XY(J,KM,1)*Q(J,KM,2)/Q(J,KM,1)+XY(J,KM,2)*     INLET    187
     <Q(J,KM,3)/Q(J,KM,1))-(XIT(J,KMM)+XY(J,KMM,1)*Q(J,KMM,2)/Q(J,KMM,1) INLET    188
     <+XY(J,KMM,2)*Q(J,KMM,3)/Q(J,KMM,1))                               INLET    189
      IF(INVIS .GT. 0)UEXT=0.0                                          INLET    190
      U2=(XY(J,K,4)*(UEXT-XIT(J,K))+XY(J,K,2)*ETT(J,K))/P(J,K)          INLET    191
      V2=(-XY(J,K,3)*(UEXT-XIT(J,K))-XY(J,K,1)*ETT(J,K))/P(J,K)         INLET    192
      U2=(1.-SCAL)*Q(J,K,2)/Q(J,K,1)+SCAL*U2                            INLET    193
      V2=(1.-SCAL)*Q(J,K,3)/Q(J,K,1)+SCAL*V2                            INLET    194
C      Q2 AND Q3 NOW SATISFY TANGENCY... INDEPENDTLY OF WHETHER         INLET    195
C                DENSITY IS LAGGED                                      INLET    196
      Q(J,K,2)=U2*Q(J,K,1)                                              INLET    197
      Q(J,K,3)=V2*Q(J,K,1)                                              INLET    198
   53 CONTINUE                                                          INLET    199
   55 CONTINUE                                                          INLET    200
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      C                                                                 BC      45
      C                                                                 BC      46
            IF(LFAC.NE.1)GO TO 1                                        INLET   201
            GO TO 2                                                     INLET   202
          1 CONTINUE                                                    INLET   203
      C     SUPERCRITICAL OUTFLOW B.C.                                  INLET   204
      C     VARIABLES EXTRAPOLATED                                      INLET   205
            DO 999 K=1,KMAX                                             INLET   206
            J=1                                                         INLET   207
            Q(J,K,1)=Q(J+1,K,1)*P(J+1,K)/P(J,K)                         INLET   208
            Q(J,K,2)=Q(J+1,K,2)*P(J+1,K)/P(J,K)                         INLET   209
            Q(J,K,3)=Q(J+1,K,3)*P(J+1,K)/P(J,K)                         INLET   210
            Q(J,1,3)=0.                                                 INLET   211
            Q(J,KMAX,3)=0.                                              INLET   212
            Q(J,K,4)=Q(J+1,K,4)*P(J+1,K)/P(J,K)                         INLET   213
        999 CONTINUE                                                    INLET   214
            GO TO 63                                                    INLET   215
          2 CONTINUE                                                    INLET   216
      C     OUTFLOW BOUNDARY                                            INLET   217
      C     IF LFAC=1, OUTFLOW IS SUBSONIC OTHERWISE SUPERSONIC         INLET   218
      C   TEST IF UPSTREAM OR DOWNSTREAM IS REFLECTED                   BC      47
      C     SUBCRITICAL OUTFLOW B.C.                                    INLET   219
            PBACK=21.8                                                  SHB     11
            DO 11 K=1,KMAX                                              SHB     12
            UD(2,K)=Q(2,K,2)/Q(2,K,1)                                   SHB     13
            IF(NN.GT.1)GO TO 444                                        SHB     14
            PSUP=GAMI*(Q(1,K,4)*P(1,K)-.5*Q(1,K,1)*P(1,K)              SHB     15
           <*(UD(2,K)*UD(2,K)))                                         SHB     16
        444 CONTINUE                                                    SHB     17
            PPB(1,K)=PSUP+(PBACK/300.)*NN                               SHB     18
            IF(PPB(1,K).GT.PBACK)PPB(1,K)=PBACK                         SHB     19
            VD(1,K)=0.                                                  SHB     20
            UD(1,K)=UD(2,K)                                             SHB     21
            DEN(2,K)=Q(2,K,1)*P(2,K)                                    SHB     22
            DEN(1,K)=DEN(2,K)                                           SHB     23
         11 CONTINUE                                                    SHB     24
      C     SETS WALL PRESSURE                                          SHB     25
            PPB(1,1)=                 PPB(1,2)                          SHB     26
            PPB(1,KMAX)=PPB(1,KM)                                       SHB     27
      C     NOW CALCULATES ENERGY                                       SHB     28
            DO 17 K=1,KMAX                                              SHB     29
            RAP1=DEN(1,K)*0.5*(UD(1,K)**2)                              SHB     30
            EN(1,K)=RAP1+(1./.4)*PPB(1,K)                               SHB     31
         17 CONTINUE                                                    SHB     32
      C     CALCULATES FLUX VARIABLES, FORMS Q-HAT                      SHB     33
            DO 19 K=1,KMAX                                              SHB     34
            SOS=SQRT(ABS(1.4*PPB(1,K)/DEN(1,K)))                        SHB     35
            Q(1,K,1)=DEN(1,K)/P(1,K)                                    SHB     36
            Q(1,K,2)=(DEN(1,K)*UD(1,K))/P(1,K)                          SHB     37
            Q(1,K,3)=(DEN(1,K)*VD(1,K))/P(1,K)                          SHB     38
            Q(1,K,4)=EN(1,K)/P(1,K)                                     SHB     39
            IF(UD(1,K).LT.SOS)GO TO 209                                 SHB     40
            Q(1,K,1)=Q(2,K,1)*P(2,K)/P(1,K)                             SHB     41
            Q(1,K,2)=Q(2,K,2)*P(2,K)/P(1,K)                             SHB     42
            Q(1,K,3)=Q(2,K,3)*P(2,K)/P(1,K)                             SHB     43
        209 CONTINUE                                                    SHB     44
         19 CONTINUE                                                    SHB     45
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                63 CONTINUE                                                    SHB      46
                   KDUP=1                                                      SHB      47
                   J=2                                                         SHB      48
175             77 FLR=0.                                                      SHB      49
                   DO 76 K=1,KMAXM1                                            SHB      50
                   PA1=Q(J,K,2)*P(J,K)+Q(J,K+1,2)*P(J,K+1)                     SHB      51
                   PA2=Y(J,K+1)-Y(J,K)                                         SHB      52
                   FLR=FLR+PA1*PA2*.5                                          SHB      53
180             76 CONTINUE                                                    SHB      54
                   FLR=-FLR*.5/RINF/QINF                                       SHB      55
                C    SREF IS REF. LENGTH                                       SHB      56
                   SREF=5.732                                                  SHB      57
                   FLR=2.*FLR/SREF                                             SHB      58
185                WRITE(6,137)FLR,NN,J                                        SHB      59
              137 FORMAT(1X,*MDOT=*,E12.5,*TIME STEP*,I5,*JINDEX=*,I5)         SHB      60
                   KDUP=KDUP+1                                                 SHB      61
                   J=J+5                                                       SHB      62
                   IF(KDUP.LE.6)GO TO 77                                       SHB      63
190             C    END OF SHB METHOD                                         INLET    284
                   J = JMAX                                                    BC       55
                   DO 20 K=1,KMAX                                              BC       56
                   DO 21 N=1,4                                                 BC       57
                21 Q(J,K,N) = Q(J-1,K,N)*P(J-1,K)/P(J,K)                       BC       58
195             20 CONTINUE                                                    BC       59
                29 CONTINUE                                                    BC       60
                C                                                              BC       61
                C  SATISFY MOMENTUM RELATION FOR NORMAL PRESSURE DERIVATION    BC       62
                C              THIS SECTION FOR COWL WALLS                     INLET    285
200                K = 1                                                       BC       63
                   IF(NN.LE.NNE)GO TO 73                                       INLET    286
                   DO 30 J=J1,J2                                               BC       64
                   RHO = Q(J,K,1)*P(J,K)                                       BC       65
                   UU = ( XY(J,K,1)*Q(J,K,2) + XY(J,K,2)*Q(J,K,3))/Q(J,K,1)    BC       66
205             1 + XIT(J,K)                                                   BC       67
                   UXI = .5*( Q(J+1,K,2)/Q(J+1,K,1) - Q(J-1,K,2)/Q(J-1,K,1))   BC       68
                   VXI = .5*( Q(J+1,K,3)/Q(J+1,K,1) - Q(J-1,K,3)/Q(J-1,K,1))   BC       69
                   FF = RHO*UU*( XY(J,K,3)*UXI+XY(J,K,4)*VXI) -RHO*(ETT(J,K) - BC       70
                1    DETAS(J))/DT                                              BC       71
210             C****AXISYMMETRIC OPTION                                       INLET    287
                   AX1=(Q(J,K,2)/Q(J,K,1))*XY(J,K,3)                           INLET    288
                   AX2=(Q(J,K,3)/Q(J,K,1))*XY(J,K,4)                           INLET    289
                   AX3=AX1+AX2                                                 INLET    290
                   AX4=RHO*(Q(J,K,3)/Q(J,K,1))/(Y(J,K)+.0001)                  SHB      64
215                FF=FF+AX3*AX4*JAXI                                          INLET    292
                   DETAS(J) = ETT(J,K)                                         BC       72
                   C1 = XY(J,K,3)*XY(J,K,1) + XY(J,K,2)*XY(J,K,4)              BC       73
                   C2 = XY(J,K,3)**2 + XY(J,K,4)**2                            BC       74
                   P2 = GAMI*( Q(J,2,4) -.5*(Q(J,2,2)**2+Q(J,2,3)**2) /Q(J,2,1) ) BC       75
220                P3 = GAMI*( Q(J,3,4) -.5*(Q(J,3,2)**2+Q(J,3,3)**2) /Q(J,3,1) ) BC       76
                   F(J) = -FF+C2*(-(1.+FOSO)*P2*P(J,K+1)+.5*FOSO*P3*P(J,K+2))  BC       77
                   A(J) = -.5*C1                                               BC       78
                   C(J) = .5*C1                                                BC       79
                   B(J) = -(1.+.5*FOSO)*C2                                     BC       80
225             30 CONTINUE                                                    BC       81
                   JJ = J1-1                                                   BC       82
                   PBC = GAMI*( Q(JJ,K,4) -.5*( Q(JJ,K,2)**2 +Q(JJ,K,3)**2)/Q(JJ,K,1) BC       83
                1  )                                                          BC       84
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                F(J1) = F(J1) - A(J1)*PBC*P(JJ,K)                                  BC        85
230             JJ = J2+1                                                          BC        86
                PBC = GAMI*( Q(JJ,K,4) -.5*( Q(JJ,K,2)**2 +Q(JJ,K,3)**2)/Q(JJ,K,1) BC        87
               1  )                                                                BC        88
                F(J2) = F(J2) - C(J2)*PBC*P(JJ,K)                                  BC        89
                CALL TRIB(A,B,C,Z,F,J1,J2)                                         BC        90
235             DO 31 J=J1,J2                                                      BC        91
                F1=F(J)/P(J,1)                                                     INLET    293
                BETA=0.                                                            INLET    294
                NTSG=1                                                             SHB       65
                IF(NTIME.GE.NTSG)GO TO 161                                         INLET    296
240             IF(J.LT.35)BETA=.1                                                 SHB       66
              161 CONTINUE                                                         INLET    298
                IF(NTIME.LT.NCRIT)GO TO 33                                         INLET    300
              C    CHANGE THIS CARD FOR EACH NEW GEOMETRY                          INLET    301
                IF(J.GE.J1.AND.J.LE.J2)BETA=.1                                     SHB       67
245            33 CONTINUE                                                         INLET    303
                IF(J .GE. J1+1 .AND. J .LE. J2-1)                                  INLET    304
               <F1=((1.-2.*BETA)*F(J)+BETA*(F(J-1)+F(J+1)))/P(J,K)                 INLET    305
              C RESCALE Q2 AND Q3 TO NEW DENSITY SUCH THAT WHEN REFORMING PRESSURE  BC        93
              C      FROM Q1 TO Q4, THE NORMAL DERIVATIVE OF PRESSURE IS SATIFIED  BC        94
250           RHO = Q(J,K,1)                                                       BC        95
              Q(J,K,1) = Q(J,2,1)*P(J,2)/P(J,1)                                    BC        96
              Q(J,K,2) = Q(J,K,2)*Q(J,K,1)/RHO                                     BC        97
              Q(J,K,3) = Q(J,K,3)*Q(J,K,1)/RHO                                     BC        98
              Q(J,K,4)=F1/GAMI+0.5*(Q(J,K,2)**2+Q(J,K,3)**2)/Q(J,K,1)              INLET    306
255           31 CONTINUE                                                          BC       100
              73 CONTINUE                                                          INLET    307
              C                                                                    BC       101
               65  CONTINUE                                                       INLET    308
              C           THIS SECTION FOR BODY + RAMP WALLS                       INLET    309
260           K=KMAX                                                             INLET    310
              DO 40 J=J1,J3                                                      INLET    311
              RHO=Q(J,K,1)*P(J,K)                                                INLET    312
              UU=(XY(J,K,1)*Q(J,K,2)+XY(J,K,2)*Q(J,K,3))/Q(J,K,1)+XIT(J,K)       INLET    313
              UXI=0.5*(Q(J+1,K,2)/Q(J+1,K,1)-Q(J-1,K,2)/Q(J-1,K,1))              INLET    314
265           VXI=0.5*(Q(J+1,K,3)/Q(J+1,K,1)-Q(J-1,K,3)/Q(J-1,K,1))              INLET    315
              IF(J .NE. J3)GO TO 45                                              INLET    316
              UXI=0.5*(3.*Q(J,K,2)/Q(J,K,1)-4.*Q(J-1,K,2)/Q(J-1,K,1)+Q(J-2,K,2)/ INLET    317
             <Q(J-2,K,1))                                                        INLET    318
              VXI=0.5*(3.*Q(J,K,3)/Q(J,K,1)-4.*Q(J-1,K,3)/Q(J-1,K,1)+Q(J-2,K,3)/ INLET    319
270          <Q(J-2,K,1))                                                        INLET    320
               45  CONTINUE                                                      INLET    321
              FF=RHO*UU*(XY(J,K,3)*UXI+XY(J,K,4)*VXI)-RHO*(ETT(J,K)-DETAS1(J))   INLET    322
             </DT                                                                INLET    323
              C***AXISYMMETRIC OPTION                                            INLET    324
275           AX1=(Q(J,K,2)/Q(J,K,1))*XY(J,K,3)                                  INLET    325
              AX2=(Q(J,K,3)/Q(J,K,1))*XY(J,K,4)                                  INLET    326
              AX3=AX1+AX2                                                        INLET    327
              AX4=RHO*(Q(J,K,3)/Q(J,K,1))/(Y(J,K)*.0001)                         SHB       68
              FF=FF+AX3*AX4*JAXI                                                 INLET    329
280           DETAS1(J)=ETT(J,K)                                                 INLET    330
              C1=XY(J,K,3)*XY(J,K,1)+XY(J,K,2)*XY(J,K,4)                         INLET    331
              C2=XY(J,K,3)**2+XY(J,K,4)**2                                       INLET    332
              P2=GAMI*(Q(J,KM,4)-0.5*(Q(J,KM,2)**2+Q(J,KM,3)**2)/Q(J,KM,1))      INLET    333
              P3=GAMI*(Q(J,KMM,4)-0.5*(Q(J,KMM,2)**2+Q(J,KMM,3)**2)/Q(J,KMM,1))  INLET    334
285           F(J)=-FF+C2*(-(1.+FOSO)*P2*P(J,KM)+0.5*FOSO*P3*P(J,KMM))           INLET    335
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      A(J)=-.5*C1                                                       INLET   336
      B(J)=-(1.+0.5*FOSO)*C2                                            INLET   337
      C(J)=0.5*C1                                                       INLET   338
   40 CONTINUE                                                          INLET   339
      JJ=J1-1                                                           INLET   340
      PBC=GAMI*(Q(JJ,K,4)-0.5*(Q(JJ,K,2)**2+Q(JJ,K,3)**2)/Q(JJ,K,1))    INLET   341
      F(J1)=F(J1)-A(J1)*PBC*P(JJ,K)                                     INLET   342
      JJ=J3+1                                                           INLET   343
      PBC=GAMI*(Q(JJ,K,4)-0.5*(Q(JJ,K,2)**2+Q(JJ,K,3)**2)/Q(JJ,K,1))    INLET   344
      F(J3)=F(J3)-C(J3)*PBC*P(JJ,K)                                     INLET   345
      CALL TRIB(A,B,C,Z,F,J1,J3)                                        INLET   346
      DO 41 J=J1,J3                                                     INLET   347
      F1  =F(J)/P(J,KMAX)                                               INLET   348
      BETA=0.                                                           INLET   349
      IF(NTIME.GE.NTSG)GO TO 162                                        INLET   350
      IF(J.LE.JINPL)BETA=.1                                             SHB      69
  162 CONTINUE                                                          INLET   352
      IF(J .GE. J1+1 .AND.  J .LE. J3-1)                                INLET   353
     <F1=((1.-2.*BETA)*F(J)+BETA*(F(J-1)+F(J+1)))/P(J,KMAX)             INLET   354
C RESCALE Q2 AND Q3 TO NEW DENSITY SUCH THAT WHEN REFORMING PRESSURE    INLET   355
C      FROM Q1 TO Q4 THE NORMAL DERIVATIVE OF PRESSURE IS SATISFIED     INLET   356
      RHO=Q(J,K,1)                                                      INLET   357
      Q(J,K,1)=Q(J,KM,1)*P(J,KM)/P(J,KMAX)                              INLET   358
      Q(J,K,2)=Q(J,K,2)*Q(J,K,1)/RHO                                    INLET   359
      Q(J,K,3)=Q(J,K,3)*Q(J,K,1)/RHO                                    INLET   360
      Q(J,K,4)=F1/GAMI+0.5*(Q(J,K,2)**2+Q(J,K,3)**2)/Q(J,K,1)           INLET   361
   41 CONTINUE                                                          INLET   362
      RETURN                                                            BC      117
      END                                                               BC      118
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```
      SUBROUTINE RHS                                                    RHS       2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD, BASE      2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID         BASE      3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND      BASE      4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                     BASE      5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                      VARS      2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)   VARS      3
      LEVEL 2,X,Y,S,XIT,ETT                                             VARS      4
      COMMON/BTRID/ A(80,4,4),B(80,4,4),C(80,4,4),D(80,4,4),DU(80,4,4), RHS       5
     1   F(80,4)                                                        RHS       6
      COMMON/UPWND/ EB(80),EF(80)                                       RHS       7
      COMMON/AVERM/ SS(80),SXP(80),SYP(80),SXN(80),SYN(80),SF(80)       RHS       8
      DIMENSION VP(80,4),VN(80,4),G(80,4)                               RHS       9
      COMMON/AXI/JAXI                                                   INLET   363
      COMMON/AXISYM/FAXI(4)                                             INLET   364
      COMMON/SYM/HAXI(80,50)                                            INLET   365
      LEVEL 2,HAXI                                                      INLET   366
C                                                                       RHS      10
C                                                                       RHS      11
C****THIS SUBROUTE CALCULATES THE RHS OF THE  FINITE DIFF. EQN IN DELTA  INLET   367
C     FORM ALGORITHM                                                    INLET   368
C     FOR 2ND ORDER IN TIME SET RO=-0.5*DT                              INLET   369
C     FOR FIRST ORDER IN TIME SET RO=-DT                                INLET   370
C       CENTRAL DIFFERENCING USED IN ETA DIRECTION                      RHS      12
      DO 29 J=2,JM                                                      RHS      13
      DO 20 K=1,KM^X                                                    RHS      14
      R1 = XY(J,K,3)                                                    RHS      15
      R2 = XY(J,K,4)                                                    RHS      16
      R4 = ETT(J,K)                                                     RHS      17
      CALL FLUXVE(J,K,R1,R2,0.,R4)                                      RHS      18
      DO 22 N=1,4                                                       RHS      19
   22 F(K,N) = FV(N)                                                    RHS      20
   20 CONTINUE                                                          RHS      21
      RO = - .5*DT                                                      RHS      22
      CALL DIFFERIF,FV,FD,RO,2,KM)                                      RHS      23
      DO 24 N=1,4                                                       RHS      24
      DO 24 K=2,KM                                                      RHS      25
   24 S(J,K,N) = F(K,N)                                                 RHS      26
   29 CONTINUE                                                          RHS      27
C                                                                       RHS      28
      IF( INVIS.GT.0) CALL VISRHS                                       RHS      29
C                                                                       RHS      30
C       CENTRAL/UPWIND DIFFERENCING USED IN XI                          RHS      31
C     COMPUTE FLUX VECTORS AND UPWIND SWITCHING PARAMETERS              RHS      32
      DO 19 K=2,KM                                                      RHS      33
      DO 10 J=1,JMAX                                                    RHS      34
      R1 = XY(J,K,1)                                                    RHS      35
      R2 = XY(J,K,2)                                                    RHS      36
      R3 = XIT(J,K)                                                     RHS      37
      CALL FLUXVE(J,K,R1,R2,R3,0.)                                      RHS      38
      IF( IUPWND.GT.0 ) GO TO 49                                        RHS      39
      RINV = 1./Q(J,K,1)                                                RHS      40
      U = XIT(J,K) + RINV*( XY(J,K,1)*Q(J,K,2)+ XY(J,K,2)*Q(J,K,3))     RHS      41
      PP= GAMI*( Q(J,K,4) -.5*(Q(J,K,2)**2+Q(J,K,3)**2)*RINV)           RHS      42
      CC = SQRT( GAMMA*PP*( XY(J,K,1)**2+XY(J,K,2)**2)*RINV)            RHS      43
      UMC = U - CC                                                      RHS      44
      UPC = U + CC                                                      RHS      45
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                  EB(J) = .5 + SIGN(.5,UMC)                                          RHS       46
                  EF(J) = .5 - SIGN(.5,UPC)                                          RHS       47
60             49 CONTINUE                                                           RHS       48
                  DO 12 N=1,4                                                        RHS       49
                  HAXI(J,N)=FAXI(N)                                                  INLET     371
               12 F(J,N) = FV(N)                                                     RHS       50
               10 CONTINUE                                                           RHS       51
65             C  ADJUST SHOCK POINT OPERATOR                                        RHS       52
                  IF( IU-WND.LE.0) CALL SHCKOP(2,JM)                                 RHS       53
                  RO = - .5*DT                                                       RHS       54
                  DO 18 N=1,4                                                        RHS       55
                  DO 18 J=2,JM                                                       RHS       56
70                G(J,N) = RO*( (1. -EB(J) +EF(J+1))*F(J+1,N) + ( EB(J-1) + EB(J) -  RHS       57
                 1  EF(J+1)  -EF(J))*F(J,N) -(1. +EB(J-1) -EF(J))*F(J-1,N))         RHS       58
               18 CONTINUE                                                           RHS       59
                  DO 17 N=1,4                                                        RHS       60
                  DO 17 J=2,JM                                                       RHS       61
75             17 F(J,N) = G(J,N) +.5*( EB(J-1)*S(J-1,K,N)+(2.-EB(J)-EF(J))*S(J,K,N) RHS       62
                 1   + EF(J+1)*S(J+1,K,N))                                          RHS       63
                  DO 14 N=1,4                                                        RHS       64
                  DO 14 J=2,JM                                                       RHS       65
               14 S(J,K,N) = F(J,N)                                                  RHS       66
80             C****AXISYMMETRIC OPTION                                              INLET     372
                  DO 8 N=1,4                                                         INLET     373
                  DO 8 J=2,JM                                                        INLET     374
                  S(J,K,N)=S(J,K,N)+HAXI(J,N)*JAXI*RO                                INLET     375
                8 CONTINUE                                                           INLET     376
85             19 CONTINUE                                                           RHS       67
                  GO TO 9                                                            RHS       68
               C                                                                     RHS       69
               C                                                                     RHS       70
                9 CONTINUE                                                           RHS       71
90                RETURN                                                             RHS       72
                  END                                                                RHS       73
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      SUBROUTINE FLUXVE(J,K,  R1,R2,R3,R4)                                  FLUXVE     2
      COMMON/AXISYM/FAXI(4)                                                 INLET    377
      COMMON/ZAMPA/NTSG                                                     INLET    378
      COMMON/BIR/NCRIT                                                      INLET    379
      COMMON/ZAM/NTIME                                                      INLET    380
      COMMON/IKI/JINPL                                                      INLET     70
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SM ,MD      BASE      2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID             BASE      3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND          BASE      4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                         BASE      5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                          VARS      2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)       VARS      3
      LEVEL 2,X,Y,S,XIT,ETT                                                 VARS      4
      RR = 1./Q(J,K,1)                                                      FLUXVE    5
      U = Q(J,K,2)*RR                                                       FLUXVE    6
      V = Q(J,K,3)*RR                                                       FLUXVE    7
      RO = R3 + R4                                                          FLUXVE    8
      QS = RO +R1*U + R2*V                                                  FLUXVE    9
C****THIS SUBROUTINE COMPUTES THE VECTOR OF UNKNOWNS IN THE TRANSFORMED     INLET    381
C.....SMOOTHING OF THE PRESSURE FIELD                                       INLET    382
      BETA=0.0                                                              INLET    383
      PPJP1=0.0                                                             INLET    384
      PPJM1=0.0                                                             INLET    385
      PINF=1.0/GAMMA                                                        INLET    386
      RINF=1.0                                                              INLET    387
      QINF=FSMACH                                                           INLET    388
      HTINF=GAMMA/GAMI*PINF/RINF+QINF**2*0.5                                INLET    389
      BETA1=0.0                                                             INLET    390
      IF(K .EQ. 1  .OR. K .EQ. KMAX)GO TO 5                                 INLET    391
      IF(J .EQ. 1 .OR. J .EQ. JMAX)GO TO 5                                  INLET    392
      BETA=0.                                                               INLET    393
      IF(NTIME.LT.NCRIT)GO TO 20                                            INLET    394
C   CHANGE THIS CARD FOR EACH NEW GEOMETRY                                  INLET    395
      IF(K.GT.12)GO TO 20                                                   SHB       71
      IF(J.GE.47.AND.J.LE.57)BETA=.1                                        SHB       72
      BETA1=BETA                                                            INLET    398
   20 CONTINUE                                                              INLET    399
      IF(K.LT.30)GO TO 40                                                   SHB       73
      IF(J.GE.47.AND.J.LE.57)BETA=.1                                        SHB       74
      BETA1=BETA                                                            SHB       75
   40 CONTINUE                                                              SHB       76
      KMAXM6=KMAX-6                                                         INLET    400
      JMAXM6=JMAX-6                                                         INLET    401
      IF(K.GE.KMAXM6.AND.J.GE.JMAXM6)BETA=.1                                INLET    402
C    SUBCRITICAL CASE                                                       INLET    403
      IF(NTIME.GE.NTSG)GO TO 31                                             INLET    404
      BETA=.1                                                               SHB       77
      BETA1=BETA                                                            INLET    406
   31 CONTINUE                                                              INLET    407
      RRP=1./Q(J+1,K,1)                                                     INLET    408
      RRM=1./Q(J-1,K,1)                                                     INLET    409
      UP=Q(J+1,K,2)*RRP                                                     INLET    410
      VP=Q(J+1,K,3)*RRP                                                     INLET    411
      UM=Q(J-1,K,2)*RRM                                                     INLET    412
      VM=Q(J-1,K,3)*RRM                                                     INLET    413
      PPJP1=GAMI*(Q(J+1,K,4)*P(J+1,K)-0.5*Q(J+1,K,1)*P(J+1,K)*(UP*UP+VP     INLET    414
     <*VP))                                                                 INLET    415
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      PPJM1=GAMI*(Q(J-1,K,4)*P(J-1,K)-0.5*Q(J-1,K,1)*P(J-1,K)*(UM*UM+VM  INLET   416
     <*VM))                                                              INLET   417
    5 PPJ=GAMI*(Q(J,K,4)*P(J,K)-0.5*Q(J,K,1)*P(J,K)*(U*U+V*V))           INLET   418
      PP=((1.-2.*BETA)*PPJ+BETA*(PPJP1+PPJM1))/P(J,K)                    INLET   419
C****AXISYMMETRUC OPTION                                                 INLET   420
C     CONSTRUCT THE H-VECTOR                                             INLET   421
      FAXI(1)=Q(J,K,1)*V/P(J,K)                                          INLET   422
      FAXI(2)=Q(J,K,1)*V*U/P(J,K)                                        INLET   423
      FAXI(3)=FAXI(1)*V                                                  INLET   424
      FAXI(4)=((Q(J,K,4)/P(J,K))+PP)*V                                   INLET   425
      DO 46 N=1,4                                                        INLET   426
      FAXI(N)=FAXI(N)/((Y(J,K) +.0001)*P(J,K))                           SHB      78
   46 CONTINUE                                                           INLET   428
      Q(J,K,4)=PP/GAMI+0.5*(Q(J,K,2)**2+Q(J,K,3)**2)/Q(J,K,1)            INLET   429
      Q(J,K,1)=(Q(J,K,4)+PP)/HTINF*BETA1+Q(J,K,1)*(1.-BETA1)             INLET   430
      FV(1)= Q(J,K,1)*QS                                                 FLUXVE   11
      FV(2)= Q(J,K,2)*QS + R1*PP                                         FLUXVE   12
      FV(3)= Q(J,K,3)*QS + R2*PP                                         FLUXVE   13
      FV(4) = QS*( Q(J,K,4) + PP) - PP*R0                                FLUXVE   14
      RETURN                                                             FLUXVE   15
      END                                                                FLUXVE   16
```

```
1               SUBROUTINE DIFFER(F,FV,FD,RO,I1,I2)                              DIFFER     2
                DIMENSION F(80,4),FV(4),FD(4)                                    DIFFER     3
              C****THIS SUBROUTINE TIME-DIFFERENCES. IF RO=-0.5DT SECOND ORDER   INLET    431
              C     IF RO=-DT FIRST ORDER                                        INLET    432
5               DO 12 N=1,4                                                      DIFFER     4
             12 FD(N) = F(I1-1,N)                                                DIFFER     5
                DO 10 I=I1,I2                                                    DIFFER     6
                IP = I +1                                                        DIFFER     7
                DO 10 N=1,4                                                      DIFFER     8
10              FV(N) = ( F(IP,N) - FD(N))*RO                                    DIFFER     9
                FD(N) = F(I,N)                                                   DIFFER    10
             10 F(I,N) = FV(N)                                                   DIFFER    11
                RETURN                                                           DIFFER    12
                END                                                              DIFFER    13
```

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SUBROUTINE STEP        76/76   OPT=2 TRACE                    FTN 4.6+460-3      09/12/80  16.53.00        PAGE     1

                SUBROUTINE STEP                                                    STEP        2
                COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD,  BASE        2
               1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID         BASE        3
               2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND       BASE        4
               3 , LAMIN,SMUIM,VARA,VARB,VARC                                      BASE        5
                COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                       VARS        2
                COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)    VARS        3
                LEVEL 2,X,Y,S,XIT,ETT                                              VARS        4
                COMMON/BTRID/ A(80,4,4),B(80,4,4),C(80,4,4),D(80,4,4),DU(80,4,4),  STEP        5
               1   F(80,4)                                                         STEP        6
                COMMON/AVERM/ SS(80),SXP(80),SYP(80),SXN(80),SYN(80),SF(80)        STEP        7
                COMMON/UPWND/EB(80),EF(80)                                         STEP        8
          C                                                                        STEP        9
          C****THIS SUBROUTINE CONSTITUTES THE MAIN STEP IN THE  INTEGRATION PROCE INLET     433
                CALL BC                                                            STEP       10
                CALL RHS                                                           STEP       11
                CALL SMOOTH                                                        STEP       12
          C       COMPUTE L2 RESIDUAL                                              STEP       13
                KHM = KM/2                                                         STEP       14
                RESID = 0.                                                         STEP       15
                DO 15 N=1,4                                                        STEP       16
                DO 15 K=2,KHM                                                      STEP       17
                DO 15 J=2,JM                                                       STEP       18
             15 RESID = RESID + S(J,K,N)**2                                        STEP       19
                RESID = RESID/( (JM-1)*(KHM-1))                                    STEP       20
                RESID = SQRT(RESID)/( DT +.00005)                                  STEP       21
          C                                                                        STEP       22
          C      CENTRAL SCHEME WITH UPWIND                                        STEP       23
                DO 10 K=2,KM                                                       STEP       24
                CALL FILTRX(K,1,JMAX)                                              STEP       25
          C   S   MUST BE ZERO ON B.C.                                             STEP       26
                CALL BTRI(2,JM)                                                    STEP       27
                DO 11 J=2,JM                                                       STEP       28
                DO 11 N=1,4                                                        STEP       29
             11 S(J,K,N) = F(J,N)                                                  STEP       30
             10 CONTINUE                                                           STEP       31
                DO 20 J=2,JM                                                       STEP       32
                CALL FILTRY(J,1,KMAX)                                              STEP       33
                CALL BTRI(2,KM)                                                    STEP       34
                DO 21 K=2,KM                                                       STEP       35
                DO 21 N=1,4                                                        STEP       36
             21 Q(J,K,N) = F(K,N) + Q(J,K,N)                                       STEP       37
             20 CONTINUE                                                           STEP       38
                GO TO 9                                                            STEP       39
          C                                                                        STEP       40
          C                                                                        STEP       41
              9 CONTINUE                                                           STEP       42
                WRITE(6,101) RESID                                                 INLET     434
            101 FORMAT(1X,*RESIDUAL=*,E12.5)                                       INLET     435
                RETURN                                                             STEP       43
                END                                                                STEP       44
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      SUBROUTINE FILTRX(K,J1,J2)                                        FILTRX     2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD,  BASE      2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID          BASE      3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND      BASE      4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                     BASE      5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                      VARS      2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)   VARS      3
      LEVEL 2,X,Y,S,XIT,ETT                                             VARS      4
      COMMON/ARRAY/ ALPX(80),ALPY(80),BETX(80),BETY(80)                 FILTRX     5
      COMMON/BTRID/ A(80,4,4),B(80,4,4),C(80,4,4),D(80,4,4),DU(80,4,4), FILTRX     6
     1   F(80,4)                                                        FILTRX     7
      COMMON/UPWND/ EB(80),EF(80)                                       FILTRX     8
      DIMENSION E(4,4)                                                  FILTRX     9
C****THIS SUBROUTINE MAKES THE FIRST IMPLICVIT SWEEP IN THE XI-DIR       INLET    436
C      ALSO APPLIES  APPLIES THE PSEUDO-IMPLICUT SMOOTHING IN TH XI-DIR  INLET    437
      JA = J1+1                                                         FILTRX    10
      JB = J2 -1                                                        FILTRX    11
      DO 10 J=J1,J2                                                     FILTRX    12
      R1 = XY(J,K,1)*HD                                                 FILTRX    13
      R2 = XY(J,K,2)*HD                                                 FILTRX    14
      CALL AMATRX(E,J,K,R1,R2)                                          FILTRX    15
      IF( IUPWND.GT.0 ) GO TO 49                                        FILTRX    16
C      COMPUTE SWITCHING PARAMETERS FO R UPWIND DIFFERENCING            FILTRX    17
      RINV = 1./Q(J,K,1)                                                FILTRX    18
      U = XIT(J,K) + RINV*( XY(J,K,1)*Q(J,K,2)+ XY(J,K,2)*Q(J,K,3))     FILTRX    19
      PP= GAMI*( Q(J,K,4) -.5*(Q(J,K,2)**2+Q(J,K,3)**2)*RINV)           FILTRX    20
      CC = SQRT( GAMMA*PP*( XY(J,K,1)**2+XY(J,K,2)**2)*RINV)            FILTRX    21
      UMC = U - CC                                                      FILTRX    22
      UPC = U + CC                                                      FILTRX    23
      EB(J) = .5 + SIGN(.5,UMC)                                         FILTRX    24
      EF(J) = .5 - SIGN(.5,UPC)                                         FILTRX    25
   49 CONTINUE                                                          FILTRX    26
      DO 11 N=1,4                                                       FILTRX    27
      DO 12 M=1,4                                                       FILTRX    28
   12 D(J,N,M) = E(N,M)                                                 FILTRX    29
   11 D(J,N,N) = D(J,N,N) + HD*XIT(J,K)                                 FILTRX    30
   10 CONTINUE                                                          FILTRX    31
      IF( IUPWND.LE.0) CALL SHCKOP(2,JM)                                FILTRX    32
      DO 20 J=JA,JB                                                     FILTRX    33
      DO 21 N=1,4                                                       FILTRX    34
      DO 22 M=1,4                                                       FILTRX    35
      A(J,N,M) = -(1. +EB(J-1) -EF(J))*D(J-1,N,M)                       FILTRX    36
      B(J,N,M) = ( EB(J-1) + EB(J) - EF(J) -EF(J+1))*D(J,N,M)           FILTRX    37
      C(J,N,M) = (1. - EB(J) + EF(J+1))*D(J+1,N,M)                      FILTRX    38
   22 CONTINUE                                                          FILTRX    39
      F(J,N) = S(J,K,N)                                                 FILTRX    40
      A(J,N,N) = A(J,N,N) + EB(J-1)*.5                                  FILTRX    41
      B(J,N,N) = B(J,N,N) +1. - .5*( EB(J) + EF(J))                     FILTRX    42
      C(J,N,N) = C(J,N,N) + EF(J+1)*.5                                  FILTRX    43
      EP=SMUIM/P(J,K)                                                   FILTRX    44
      A(J,N,N) = A(J,N,N) - EP*P(J-1,K)                                 FILTRX    45
      B(J,N,N) = B(J,N,N) +2.*SMUIM                                     FILTRX    46
      C(J,N,N) = C(J,N,N) -EP*P(J+1,K)                                  FILTRX    47
   21 CONTINUE                                                          FILTRX    48
   20 CONTINUE                                                          FILTRX    49
      RETURN                                                            FILTRX    50
      END                                                               FILTRX    51
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SUBROUTINE FILTRY     76/76   OPT=2 TRACE                    FTN 4.6+460-3      09/12/80  16.53.00       PAGE     1

      SUBROUTINE FILTRY(J,K1,K2)                                                FILTRY      2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD,         BASE        2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID                 BASE        3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND              BASE        4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                             BASE        5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                              VARS        2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)           VARS        3
      LEVEL 2,X,Y,S,XIT,ETT                                                     VARS        4
      COMMON/ARRAY/ ALPX(80),ALPY(80),BETX(80),BETY(80)                         FILTRY      5
      COMMON/BTRID/ A(80,4,4),B(80,4,4),C(80,4,4),D(80,4,4),DU(80,4,4),         FILTRY      6
     1   F(80,4)                                                                FILTRY      7
      DIMENSION E(4,4)                                                          FILTRY      8
      KA = K1 +1                                                                FILTRY      9
C****THIS SUBROUTINE MAKES THE SECOND IMPLICIT SWEEP IN THE ETA-DIR.            INLET     438
C    ALSO APPLIES PSEUDO -IMPLICIT SMOOTHING IN THIS DIR.                       INLET     439
      KB = K2 -1                                                                FILTRY     10
      DO 10 K=K1,K2                                                             FILTRY     11
      R1 = XY(J,K,3) *HD                                                        FILTRY     12
      R2 = XY(J,K,4)*HD                                                         FILTRY     13
      CALL AMATRX(E,J,K,R1,R2)                                                  FILTRY     14
      DO 11 N=1,4                                                               FILTRY     15
      DO 12 M=1,4                                                               FILTRY     16
   12 D(K,N,M) = E(N,M)                                                         FILTRY     17
   11 D(K,N,N) = D(K,N,N) + HD*ETT(J,K)                                         FILTRY     18
   10 CONTINUE                                                                  FILTRY     19
      DO 20 K=KA,KB                                                             FILTRY     20
      DO 21 N=1,4                                                               FILTRY     21
      DO 22 M=1,4                                                               FILTRY     22
      A(K,N,M) = - D(K-1,N,M)                                                   FILTRY     23
      B(K,N,M) = 0.                                                             FILTRY     24
   22 C(K,N,M) = D(K+1,N,M)                                                     FILTRY     25
      F(K,N) = S(J,K,N)                                                         FILTRY     26
      EP = SMUIM/P(J,K)                                                         FILTRY     27
      A(K,N,N) = A(K,N,N) -EP*P(J,K-1)                                          FILTRY     28
      B(K,N,N) = B(K,N,N) +1. +2.*SMUIM                                         FILTRY     29
      C(K,N,N) = C(K,N,N) -EP*P(J,K+1)                                          FILTRY     30
   21 CONTINUE                                                                  FILTRY     31
   20 CONTINUE                                                                  FILTRY     32
      IF( INVIS .GT.0) CALL VISMAT(J)                                           FILTRY     33
      RETURN                                                                    FILTRY     34
      END                                                                       FILTRY     35
```

```
      SUBROUTINE AMATRX(A,J,K,R1,R2)                                    AMATRX     2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD, BASE     2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID         BASE     3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND      BASE     4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                     BASE     5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                      VARS     2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)   VARS     3
      LEVEL 2,X,Y,S,XIT,ETT                                             VARS     4
      DIMENSION A(4,4)                                                  AMATRX   5
C****THIS SUBROUTINE CALCULATES THE JACOBIAN MATRICES USED THE LINEARIZA INLET   440
      GAMI = GAMMA -1.                                                  AMATRX   6
      RR = 1. / Q(J,K,1)                                                AMATRX   7
      U = Q(J,K,2)*RR                                                   AMATRX   8
      V = Q(J,K,3)*RR                                                   AMATRX   9
      UT = U*U + V*V                                                    AMATRX  10
      C1 = GAMI *UT*.5                                                  AMATRX  11
      C2 = Q(J,K,4)*RR*GAMMA                                            AMATRX  12
      A(1,1) = 0.                                                       AMATRX  13
      A(1,2) = R1                                                       AMATRX  14
      A(1,3) = R2                                                       AMATRX  15
      A(1,4) = 0.                                                       AMATRX  16
      A(2,1) = ( -U*U +C1)*R1    -U*V*R2                                AMATRX  17
      A(2,2) = - ( GAMMA -3.)*U*R1 + V *R2                              AMATRX  18
      A(2,3) = - GAMI*V*R1 + U*R2                                       AMATRX  19
      A(2,4) = GAMI*R1                                                  AMATRX  20
      A(3,1) = - U*V*R1 + ( -V*V +C1)*R2                                AMATRX  21
       A(3,2) = V*R1 - GAMI*U*R2                                        AMATRX  22
      A(3,3) = U*R1 +(3.-GAMMA)*V*R2                                    AMATRX  23
      A(3,4) = GAMI*R2                                                  AMATRX  24
      QS = U*R1 + V*R2                                                  AMATRX  25
      A(4,1) = ( - C2 + C1*2.)*QS                                       AMATRX  26
      A(4,2) = ( C2 -C1)*R1 - GAMI*U*QS                                 AMATRX  27
      A(4,3) = ( C2 - C1)*R2 - GAMI*V*QS                                AMATRX  28
      A(4,4) = GAMMA*QS                                                 AMATRX  29
      RETURN                                                            AMATRX  30
      END                                                               AMATRX  31
```

```
SUBROUTINE MAP        76/76   OPT=2 TRACE                    FTN 4.6+460-3      09/12/80  16.53.00       PAGE     1

                SUBROUTINE MAP (IM,JM,U)                                          MAP         2
                DIMENSION U(78,36), NN(80)                                        MAP         3
                DATA ISL,IBL/1H/,1H /                                             MAP         4
          C****THIS SUBROUTINE MAPS THE QUANTITY U (TRANSFORMATION JACOBIAN) NORMA INLET     441
          C    ON THE MAX AND MIN VALUES                                          INLET     442
          C     ESTABLISH MAX AND MIN                                             MAP         5
                VARMX = 0.                                                        MAP         6
                VARMN = 1000000.                                                  MAP         7
                DO 10 J=1,JM                                                      MAP         8
                DO 10 I=1,IM                                                      MAP         9
                VTEST = ABS(U(I,J))                                               MAP        10
                IF(VTEST-VARMX) 12,12,13                                          MAP        11
          13    VARMX = VTEST                                                     MAP        12
             12 IF( VTEST - VARMN)14,10,10                                        MAP        13
          14    VARMN = VTEST                                                     MAP        14
          10    CONTINUE                                                          MAP        15
          C                                                                       MAP        16
                DEL = (VARMX-VARMN)                                               MAP        17
                IF(DEL-.0001) 99,11,11                                            MAP        18
          11    DEL = .1001*DEL                                                   MAP        19
          C                                                                       MAP        20
                DO 15 JJ=1,JM                                                     MAP        21
                J = JM+1-JJ                                                       MAP        22
                DO 16 I=1,IM                                                      MAP        23
                AVAR = ABS(U(I,J))-VARMN                                          MAP        24
          16    NN(I) = AVAR/DEL                                                  MAP        25
                WRITE(6,100) (NN(I),I=1,IM )                                      MAP        26
          100   FORMAT(1H ,119I1)                                                 MAP        27
                DO 17 I=1,IM                                                      MAP        28
                NN(I) = IBL                                                       MAP        29
             17 IF(U(I,J).LT.0.0) NN(I) = ISL                                     MAP        30
                WRITE(6,101) ( NN(I), I=1,IM )                                    MAP        31
            101 FORMAT(1H+,119A1)                                                 MAP        32
          15    CONTINUE                                                          MAP        33
          99    RETURN                                                            MAP        34
                END                                                               MAP        35
```

```
      SUBROUTINE VISRHS                                                 VISRHS     2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD, BASE     2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID         BASE     3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND      BASE     4
     3  , LAMIN,SMUIM,VARA,VARB,VARC                                    BASE     5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                      VARS     2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)   VARS     3
      LEVEL 2,X,Y,S,XIT,ETT                                             VARS     4
      COMMON/BTRID/ A(80,4,4),B(80,4,4),C(80,4,4),D(80,4,4),DU(80,4,4), VISRHS   5
     1   F(80,4)                                                        VISRHS     6
      COMMON/ VISC/ U(80),V(80),C1(80),C2(80),C3(80),C4(80),TC(80)      VISRHS     7
      COMMON/MUTUR/ TURMU(78,36),SNOR(80),DELST(80),TMO(80),TMI(80)     VISRHS     8
      COMMON/ KINMU/ FMU(80)                                            VISRHS     9
      DATA FMU /80*1.0/                                                 VISRHS    10
      DATA PR,PRTR,FRT/.72,.8,1.333333/                                 VISRHS    11
      DATA TURMU/2808*0./                                               VISRHS    12
C****THIS SUBROUTINE CALCULATES THE VISCOUS TERMS IN THE RHS OF THE FINI INLET   443
C     EQUATION IN DELTA FORM  ALGORITHM                                 INLET   444
      HRE = .5*DT/RE                                                    VISRHS    13
      GPR = GAMMA/PR                                                    VISRHS    14
      IF( LAMIN .GE.0) CALL MUTUR                                       VISRHS    15
C                                                                       VISRHS    16
      DO 30 J=2,JM                                                      VISRHS    17
      CALL MUKIN(J)                                                     VISRHS    18
C                                                                       VISRHS    19
      DO 31 K=1,KMAX                                                    VISRHS    20
      RR = 1./Q(J,K,1)                                                  VISRHS    21
      EXS = XY(J,K,3)**2                                                VISRHS    22
      EYS = XY(J,K,4)**2                                                VISRHS    23
      EXY = XY(J,K,3)*XY(J,K,4)*.333333?                                VISRHS    24
      TURM = TURMU(J,K)                                                 VISRHS    25
      VNU = FMU(K) + TURM                                               VISRHS    26
      GKAP = FMU(K) + PRTR*TURM                                         VISRHS    27
      U(K) = Q(J,K,2)*RR                                                VISRHS    28
      V(K) = Q(J,K,3)*RR                                                VISRHS    29
      DJAC = HRE/P(J,K)                                                 VISRHS    30
      VNUJAC = VNU*DJAC                                                 VISRHS    31
      C1(K) = VNUJAC*( FRT*EXS + EYS)                                   VISRHS    32
      C2(K) = VNUJAC*EXY                                                VISRHS    33
      C3(K) = VNUJAC*( EXS + FRT*EYS)                                   VISRHS    34
      C4(K) = GPR*DJAC*( EXS + EYS)*GKAP                                VISRHS    35
      TC(K) = Q(J,K,4)*RR -.5*( U(K)**2 + V(K)**2)                      VISRHS    36
   31 CONTINUE                                                          VISRHS    37
C                                                                       VISRHS    38
      K = 1                                                             VISRHS    39
      KP = K +1                                                         VISRHS    40
      S1 = ( C1(KP)+C1(K))*( U(KP) -U(K))                               VISRHS    41
      SS = C2(KP) + C2(K)                                               VISRHS    42
      S2 = SS*( V(KP) - V(K))                                           VISRHS    43
      S3 = SS*( U(KP) - U(K))                                           VISRHS    44
      S4 = ( C3(KP) + C3(K))*( V(KP) - V(K))                            VISRHS    45
      R2 = S1 + S2                                                      VISRHS    46
      R3 = S3 + S4                                                      VISRHS    47
      R4 = ( C4(KP) + C4(K))*( TC(KP) - TC(K)) +.5*( S1*(U(KP)+U(K))    VISRHS    48
     1  + S4*( V(KP)+V(K))) + U(KP)*S2 + V(K)*S3                        VISRHS    49
      DO 32 K=2,KM                                                      VISRHS    50
      KP = K + 1                                                        VISRHS    51
```

```
                S1 = ( C1(KP)+C1(K))*( U(KP) -U(K))                                  VISRHS     52
                SS = C2(KP) + C2(K)                                                  VISRHS     53
60              S2 = SS*( V(KP) - V(K))                                              VISRHS     54
                S3 = SS*( U(KP) - U(K))                                              VISRHS     55
                S4 = ( C3(KP) + C3(K))*( V(KP) - V(K))                               VISRHS     56
                F2 = S1 + S2                                                         VISRHS     57
                F3 = S3 + S4                                                         VISRHS     58
65              F4 = ( C4(KP) + C4(K))*( TC(KP) - TC(K)) +.5*( S1*(U(KP)+U(K))      VISRHS     59
               1  + S4*( V(KP)+V(K))) + U(KP)*S2 + V(K)*S3                           VISRHS     60
                F(K,1) = 0.                                                          VISRHS     61
                F(K,2) = F2 - R2                                                     VISRHS     62
                F(K,3) = F3 - R3                                                     VISRHS     63
70              F(K,4) = F4 - R4                                                     VISRHS     64
                R2 = F2                                                              VISRHS     65
                R3 = F3                                                              VISRHS     66
                R4 = F4                                                              VISRHS     67
             32 CONTINUE                                                             VISRHS     68
75         C                                                                         VISRHS     69
                DO 33 K=2,KM                                                         VISRHS     70
                DO 33 N=1,4                                                          VISRHS     71
             33 S(J,K,N) = S(J,K,N) + F(K,N)                                         VISRHS     72
             30 CONTINUE                                                             VISRHS     73
80              RETURN                                                               VISRHS     74
                END                                                                  VISRHS     75
```

```
      SUBROUTINE VISMAT(J)                                                  VISMAT     2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD,     BASE       2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID             BASE       3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND          BASE       4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                         BASE       5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                          VARS       2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)       VARS       3
      LEVEL 2,X,Y,S,XIT,ETT                                                 VARS       4
      COMMON/BTRID/ A(80,4,4),B(80,4,4),C(80,4,4),D(80,4,4),DU(80,4,4),     VISMAT     5
     1   F(80,4)                                                           VISMAT     6
      COMMON/ VISC/ U(80),V(80),C1(80),C2(80),C3(80),C4(80),TC(80)          VISMAT     7
      COMMON/MUTUR/ TURMU(78,36),SNOR(80),DELST(80),TMO(80),TMI(80)         VISMAT     8
      COMMON/ KINMU/ FMU(80)                                                VISMAT     9
      DIMENSION RR(80)                                                      VISMAT    10
C****CALCULATES THE JACOBIAN MATRICES FOR VISCOUS FLOW IN THE Y-SWEEP        INLET    445
C     OF THE INTEGRATION PROCESS                                            INLET    446
      DATA PR,PRTR,FRT/.72,.8,1.333333/                                     VISMAT    11
      CALL MUKIN(J)                                                         VISMAT    12
C                                                                           VISMAT    13
      HRE = HD/RE                                                           VISMAT    14
      GPR = GAMMA/PR                                                        VISMAT    15
      DO 10 K=1,KMAX                                                        VISMAT    16
      R1 = 1./Q(J,K,1)                                                      VISMAT    17
      EXS = XY(J,K,3)**2                                                    VISMAT    18
      EYS = XY(J,K,4)**2                                                    VISMAT    19
      EXY = XY(J,K,3)*XY(J,K,4)*.3333333                                    VISMAT    20
      TURM = TURMU(J,K)                                                     VISMAT    21
      VNU = FMU(K) + TURM                                                   VISMAT    22
      GKAP = FMU(K) + PRTR*TURM                                             VISMAT    23
      DJAC = HRE/P(J,K)                                                     VISMAT    24
      VNUJAC = VNU*DJAC                                                     VISMAT    25
      C1(K) = VNUJAC*( FRT*EXS + EYS)                                       VISMAT    26
                                                                            VISMAT    27
      C1(K) = VNUJAC*( FRT*EXS + EYS)                                       VISMAT    28
      C2(K) = VNUJAC*EXY                                                    VISMAT    29
      C3(K) = VNUJAC*( EXS + FRT*EYS)                                       VISMAT    30
      C4(K) = GPR*DJAC*( EXS + EYS)*GKAP                                    VISMAT    31
      RR(K) = R1                                                            VISMAT    32
      U(K) = R1*Q(J,K,2)                                                    VISMAT    33
      V(K) = R1*Q(J,K,3)                                                    VISMAT    34
      TC(K) = Q(J,K,4)*R1 - ( U(K)**2 + V(K)**2)                            VISMAT    35
   10 CONTINUE                                                              VISMAT    36
      DO 20 K=2,KMAX                                                        VISMAT    37
      KR = K -1                                                             VISMAT    38
      CC1 = C1(KR) + C1(K)                                                  VISMAT    39
      CC2 = C2(KR)+ C2(K)                                                   VISMAT    40
      CC3 =  C3(KR)+ C3(K)                                                  VISMAT    41
      CC4 = C4(KR)+ C4(K)                                                   VISMAT    42
      D(K,2,1) = - ( CC1*U(KR) + CC2*V(KR)) *RR(KR)                         VISMAT    43
      DU(K,2,1) = -( CC1*U(K) + CC2*V(K))*RR(K)                             VISMAT    44
      D(K,2,2) = CC1*RR(KR)                                                 VISMAT    45
      DU(K,2,2) = CC1*RR(K)                                                 VISMAT    46
      D(K,2,3) = CC2*RR(KR)                                                 VISMAT    47
      DU(K,2,3) = CC2*RR(K)                                                 VISMAT    48
      D(K,2,4) = 0.                                                         VISMAT    49
      DU(K,2,4) = 0.                                                        VISMAT    50
      D(K,3,1) = - ( CC2*U(KR) + CC3*V(KR))*RR(KR)                          VISMAT    51
```

```
                DU(K,3,1) = - ( CC2*U(K) + CC3*V(K))*RR(K)                        VISMAT     52
                D(K,3,2) = CC2*RR(KR)                                             VISMAT     53
60              DU(K,3,2) = CC2*RR(K)                                             VISMAT     54
                D(K,3,3) = CC3*RR(KR)                                             VISMAT     55
                DU(K,3,3) = (C3*RR(K)                                             VISMAT     56
                D(K,3,4) = 0.                                                     VISMAT     57
                DU(K,3,4) = 0.                                                    VISMAT     58
65              D(K,4,1) = -( CC4*TC(KR) +CC1*U(KR)**2 +2.*CC2*U(KR)*V(KR) +      VISMAT     59
               1   CC3*V(KR)**2)*RR(KR)                                          VISMAT     60
                DU(K,4,1) = - (CC4*TC(K) + CC1*U(K)**2 +2.*CC2*U(K)*V(K) +        VISMAT     61
               1  CC3*V(K)**2) *RR(K)                                           VISMAT     62
                D(K,4,2) = -CC4*U(KR)*RR(KR) - D(K,2,1)                           VISMAT     63
70              DU(K,4,2) = -CC4*U(K)*RR(K) - DU(K,2,1)                           VISMAT     64
                D(K,4,3) = -CC4*V(KR)*RR(KR) - D(K,3,1)                           VISMAT     65
                DU(K,4,3)= -CC4*V(K)*RR(K) -DU(K,3,1)                             VISMAT     66
                D(K,4,4) = CC4*RR(KR)                                             VISMAT     67
                DU(K,4,4) = CC4 *RR(K)                                            VISMAT     68
75           20 CONTINUE                                                          VISMAT     69
                DO 30 K=2,KM                                                      VISMAT     70
                KP = K+1                                                          VISMAT     71
                DO 31 N=2,4                                                       VISMAT     72
                DO 31 M=1,4                                                       VISMAT     73
80              A(K,N,M) = A(K,N,M) - D(K,N,M)                                    VISMAT     74
                B(K,N,M) = B(K ,N,M)   +D(KP,N,M) +DU(K,N,M)                      VISMAT     75
                C(K,N,M) = C(K,N,M) - DU(KP,N,M)                                  VISMAT     76
             31 CONTINUE                                                          VISMAT     77
             30 CONTINUE                                                          VISMAT     78
85              RETURN                                                            VISMAT     79
                END                                                               VISMAT     80
```

```
      SUBROUTINE EIGEN(N)                                                INLET   447
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD,  BASE      2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID          BASE      3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND       BASE      4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                      BASE      5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                       VARS      2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)    VARS      3
      LEVEL 2,X,Y,S,XIT,ETT                                              VARS      4
      JT = 1                                                             EIGEN     5
C****THIS SUBROUTINE CALCULATES THE EIGENVALUES OF K1*A+K2*B  TO FIND     INLET   448
C     ALLOWABLE TIME STEP FOR GIVEN COURANT NUMBER                       INLET   449
      KT = 1                                                             EIGEN     6
      SIGMAX = 0.                                                        EIGEN     7
      DO 1 K=2,KM                                                        EIGEN     8
      DO 1 J=2,JM                                                        EIGEN     9
      RI = 1./Q(J,K,1)                                                   EIGEN    10
      U = Q(J,K,2)*RI                                                    EIGEN    11
      V = Q(J,K,3)*RI                                                    EIGEN    12
      ROOT=GAMI*GAMMA*(Q(J,K,4)*RI-0.5*(U*U+V*V))                        INLET   450
      IF(ROOT .LT. 0.0)ROOT=0.0                                          INLET   451
      SNDSP=SQRT(ROOT)                                                   INLET   452
      SIGA=ABS(U*XY(J,K,1)+V*XY(J,K,2)) +SNDSP*SQRT(XY(J,K,1)**2+        EIGEN    14
     1  XY(J,K,2)**2)                                                    EIGEN    15
      SIGB = ABS(U*XY(J,K,3) +V*XY(J,K,4)) + SNDSP*SQRT(XY(J,K,3)**2     EIGEN    16
     1  + XY(J,K,4)**2)                                                  EIGEN    17
C     NOTE XIT AND ETT NOT IN CALCULATION                                EIGEN    18
      SIGAB = AMAX1(SIGA,SIGB)                                           EIGEN    19
      IF( SIGAB - SIGMAX)1,1,3                                           EIGEN    20
    3 JT = J                                                             EIGEN    21
      KT = K                                                             EIGEN    22
      SIGMAX = SIGAB                                                     EIGEN    23
    1 CONTINUE                                                           EIGEN    24
      NNCR=10000                                                         INLET   453
      DT=CNBR/SIGMAX                                                     INLET   455
      HD=.5*DT                                                           INLET   456
      SMU=DT*12.                                                         INLET   457
      SMUIM=3.2*SMU                                                      INLET   458
      WRITE(6,600)JT,KT,DT,CNBR,       SMU,SMUIM                         INLET   459
  600 FORMAT(1H ,29H JT,KT,DT,CNBR,       SMU,SMUIMP,2I5,5F15.10)       INLET   460
      CNBR1=DT*SIGMAX                                                    INLET   461
      WRITE(6,601)JT,KT,CNBR1                                            INLET   462
  601 FORMAT(1X,*JT,KT,CNBR1*,2I5,E12.5)                                 INLET   463
      RETURN                                                             EIGEN    28
      END                                                                EIGEN    29
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```
      SUBROUTINE CPPLOT                                                 CPPLOT     2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD, BASE      2
     1 FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID         BASE      3
     2. CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND      BASE      4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                     BASE      5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                      VARS      2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)   VARS      3
      LEVEL 2,X,Y,S,XIT,ETT                                             VARS      4
      DIMENSION XX(120)                                                 CPPLOT    5
C****THIS SUBROUTINE PLOTS THE NORMALIZED PRESSURE COEFF.               INLET   464
      CPMAX =-1000000.                                                  CPPLOT    6
      CPMIN = 1000000.                                                  CPPLOT    7
      DO 10  J = JTAIL1,JTAIL2                                          CPPLOT    8
      JJ=  J + 1 - JTAIL1                                               CPPLOT    9
      K = 1                                                             CPPLOT   10
      PP = P(J,K)*GAMMA*GAMI*(Q(J,K,4)-.5*(Q(J,K,2)**2+Q(J,K,3)**2)     CPPLOT   11
     1  /Q(J,K,1))                                                      CPPLOT   12
C      CHANGE SIGN OF CP TO PLOT NEGATIVE UPWARD                        CPPLOT   13
      CP = -(PP-1.)/( .5*GAMMA*FSMACH**2)                               CPPLOT   14
      IF( CP .GT. CPMAX) CPMAX = CP                                     CPPLOT   15
      IF( CP .LT. CPMIN) CPMIN = CP                                     CPPLOT   16
      XX(JJ) = X(J,K) + XOSCIL                                          CPPLOT   17
   10 Z(JJ)=CP                                                          CPPLOT   18
      IIMIN = 11.2*CPMIN                                                CPPLOT   19
      IIMAX = 11.2*CPMAX                                                CPPLOT   20
      CPMAX = IIMAX*.1                                                  CPPLOT   21
      CPMIN = IIMIN*.1                                                  CPPLOT   22
      CPT = 1.8                                                         CPPLOT   23
      CPN = 1.2 + CPMIN                                                 CPPLOT   24
      IF( CPN.GT.0.) CPMIN = -1.2                                       CPPLOT   25
      IF(CPMAX.LT.CPT) CPMAX = CPT                                      CPPLOT   26
      CALL AXIS( 0.,1.,CPMIN,CPMAX,10,10)                               CPPLOT   27
      CALL LABEL(1HX,1,2HCP,2)                                          CPPLOT   28
      JNBR = JTAIL2 - JTAIL1 +1                                         CPPLOT   29
      CALL PLOT(XX,Z,JNBR,0)                                            CPPLOT   30
C     PLOT AIRFOIL ON BOTTOM OF PLOT                                    CPPLOT   31
      YMIN = 1000.                                                      CPPLOT   32
      DO 20 J = JTAIL1,JTAIL2                                           CPPLOT   33
      JJ = J + 1 - JTAIL1                                               CPPLOT   34
      Z(JJ) = Y(J,1)                                                    CPPLOT   35
      IF( Z(JJ) .LT. YMIN) YMIN = Z(JJ)                                 CPPLOT   36
   20 CONTINUE                                                          CPPLOT   37
      DO 22 J = JTAIL1, JTAIL2                                          CPPLOT   38
C SCALE Y TO GIVE TRUE AIRFOIL SHAPE ON STRETCHED COOR...CHORD IS 1     CPPLOT   39
      JJ = J + 1 - JTAIL1                                               CPPLOT   40
   22 Z(JJ)= CPMIN +(Z(JJ)-YMIN)*( CPMAX-CPMIN)                         CPPLOT   41
      CALL PLOT(XX,Z,JNBR,0)                                            CPPLOT   42
      RETURN                                                            CPPLOT   43
      END                                                               CPPLOT   44
```

```
      SUBROUTINE  CLCD(NSCAL)                                           CLCD      2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HD,  BASE      2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID         BASE      3
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND      BASE      4
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                     BASE      5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                      VARS      2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)   VARS      3
      LEVEL 2,X,Y,S,XIT,ETT                                             VARS      4
C                                                                       CLCD      5
C   ROUTINE SUPPLIES FORCE AND MOMENT COEFFS. ON AIRFOIL SURFACE        CLCD      6
      CPC = 2./(GAMMA*FSMACH**2)                                        CLCD      7
C    COMPUTE CP AT GRID POINTS AND STORE IN Z ARRAY                     CLCD      8
      DO 10 J=JTAIL1,JTAIL2                                             CLCD      9
      PP = GAMI*( Q(J,1,4)-.5*(Q(J,1,2)**2+Q(J,1,3)**2)/Q(J,1,1))       CLCD     10
      IF( NSCAL .EQ.0) PP = PP*P(J,1)                                   CLCD     11
   10 Z(J) =  (PP*GAMMA -1.)*CPC                                        CLCD     12
C     COMPUTE NORMAL FORCE COEFFICIENT AND CHORD DIRECTED FORCE COEFF   CLCD     13
C    CHORD TAKEN AS ONE IN ALL CASES                                    CLCD     14
      CN = 0.                                                           CLCD     15
      CC = 0.                                                           CLCD     16
      CMLE = 0.                                                         CLCD     17
      SREF=5.732                                                        SHB      79
      ALREF=5.732                                                       SHB      80
      JTP=35                                                            INLET   467
      DO 11 J=JTP,JTAIL2                                                CLCD     19
      CPAV = ( Z(J) + Z(J-1))*.5                                        CLCD     20
      CN=CN-CPAV*(X(J,1)-X(J-1,1))/SREF                                 INLET   468
      CC=CC+CPAV*(Y(J,1)-Y(J-1,1))/SREF                                 INLET   469
      CMLE=CMLE+CPAV*(X(J,1)+X(J-1,1))*0.5*(X(J,1)-X(J-1,1)) /SREF/ALREF INLET   470
   11 CONTINUE                                                          CLCD     24
      CL = CN*COS(ALPHA*PI/180.)-CC*SIN(ALPHA*PI/180.)                  CLCD     25
      CD = CN*SIN(ALPHA*PI/180.) + CC*COS(ALPHA*PI/180.)                CLCD     26
      CMQC = CMLE +.25*CN                                               CLCD     27
      WRITE(6,600)                                                      CLCD     28
  600 FORMAT(1H0, 48H FORCE AND MOMENT COEFFS...CN,CC,CMLE,CMQC,CL,CD  ) CLCD     29
      WRITE(6,602) CN,CC,CMLE,CMQC,CL,CD                                CLCD     30
  602 FORMAT(1H0, 6F16.6)                                               CLCD     31
      RETURN                                                            CLCD     32
      END                                                               CLCD     33
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SUBROUTINE SHCKOP     76/76   OPT=2 TRACE                    FTN 4.6+460-3      09/12/80  16.53.00       PAGE     1

                SUBROUTINE SHCKOP(IA,IB)                                                SHCKOP      2
                COMMON/UPWND/ EB(80),EF(80)                                             SHCKOP      3
          C                                                                             SHCKOP      4
          C      SUBSONIC FREE STREAM ASSUMED                                           SHCKOP      5
          C                                                                             SHCKOP      6
          C      ADJUST SHOCK POINT OPERATORS                                           SHCKOP      7
                DO 10 I=IA,IB                                                           SHCKOP      8
                EB(I) = EB(I)*EB(I+1)                                                   SHCKOP      9
                M = IA + IB - I                                                         SHCKOP     10
             10 EF(M) = EF(M)*EF(M-1)                                                   SHCKOP     11
          C      TURN OFF MOST EPS FLAG SAVE JUST BEFORE SHOCK                          SHCKOP     12
                IFLG = 0                                                                SHCKOP     13
                DO 20 I=IA,IB                                                           SHCKOP     14
                J = IA+IB -I                                                            SHCKOP     15
                IF( EB(J)) 22,22,21                                                     SHCKOP     16
             21 IFLG = IFLG +1                                                          SHCKOP     17
                IF( IFLG.GT.3  ) EB(J) = 0.                                             SHCKOP     18
                GO TO 20                                                                SHCKOP     19
             22 IFLG = 0                                                                SHCKOP     20
             20 CONTINUE                                                                SHCKOP     21
                RETURN                                                                  SHCKOP     22
                END                                                                     SHCKOP     23
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      SUBROUTINE MUKIN(J)                                                MUKIN     2
C****CALCULATES LAMINAR VISCOSITY VIA SUTHERLAND EQUATION                 INLET   471
      COMMON/IKI/JINPL                                                   INLET   472
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,EPS,GAMMA,GAMI,SMU,HO,  BASE      2
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID          BASE      3
     2. CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND       BASE      4
     3 . LAMIN,SMUIM,VARA,VARB,VARC                                      BASE      5
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                       VARS      2
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)    VARS      3
      LEVEL 2,X,Y,S,XIT,ETT                                              VARS      4
      COMMON/ KINMU/ FMU(80)                                             MUKIN     5
      COMMON/ZAM/NTIME                                                   SHB      81
      DATA INIT/0/                                                       MUKIN     6
C                                                                        MUKIN     7
C    SUTHERLAND EQUATION                                                 MUKIN     8
      KEDGE=KMAX                                                         INLET   473
      IF(J.GT.JINPL)KEDGE=KMAX-3                                         SHB      82
      IF( INIT .GT. 0) GO TO 9                                           MUKIN    10
    8 INIT = 10                                                          MUKIN    11
      TINF=560./(1.+GAMI*.5*FSMACH**2)                                   INLET   475
      C2B = 198.6/TINF                                                   MUKIN    13
      C2BP = C2B + 1.                                                    MUKIN    14
    9 CONTINUE                                                           MUKIN    15
C                                                                        MUKIN    16
      DO 10 K=1,KEDGE                                                    MUKIN    17
      RINV = 1./Q(J,K,1)                                                 MUKIN    18
      QSQR = ( Q(J,K,2)**2 + Q(J,K,3)**2)*RINV                           MUKIN    19
      TT = GAMMA*GAMI*( Q(J,K,4) -.5*QSQR)*RINV                          MUKIN    20
      IF(TT .LT. 0.0)TT=0.0                                              INLET   476
      FMU(K) = C2BP*TT**1.5/( C2B+TT)                                    MUKIN    21
   10 CONTINUE                                                           MUKIN    22
      IF(J.LE.JINPL)GO TO 30                                             SHB      83
      KE = KEDGE +1                                                      MUKIN    23
      DO 20 K=KE,KMAX                                                    MUKIN    24
   20 FMU(K) = FMU(K-1)                                                  MUKIN    25
   30 CONTINUE                                                           INLET   478
      RETURN                                                             MUKIN    26
      END                                                                MUKIN    27
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SUBROUTINE TRIB      76/76   OPT=2 TRACE                    FTN 4.6+460-3      09/12/80  16.53.00      PAGE     1

                SUBROUTINE TRIB(A,B,C,X,F,NL,NU)                                TRIB        2
                DIMENSION A(2),B(2),C(2),X(2),F(2)                              TRIB        3
          C****INVERTS TRIDIAGONAL MATRICES                                     INLET     479
                X(NL)=C(NL)/B(NL)                                               TRIB        4
                F(NL)=F(NL)/B(NL)                                               TRIB        5
                NLP1 = NL +1                                                    TRIB        6
                DO 1 J=NLP1,NU                                                  TRIB        7
                Z=1./(B(J)-A(J)*X(J-1))                                         TRIB        8
                X(J)=C(J)*Z                                                     TRIB        9
            1   F(J)=(F(J)-A(J)*F(J-1))*Z                                       TRIB       10
                NUPNL=NU+NL                                                     TRIB       11
                DO 2 J1=NLP1,NU                                                 TRIB       12
                J=NUPNL-J1                                                      TRIB       13
            2   F(J)=F(J)-X(J)*F(J+1)                                           TRIB       14
                RETURN                                                          TRIB       15
                END                                                             TRIB       16
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      SUBROUTINE MUTUR                                                  MUTUR      2
      COMMON/BASE/NMAX,JMAX,KMAX,JM,KM,DT,FSMACH,CPS,GAMMA,GAMI,SMU,HD, MUTUR      3
     1  FV(4),FD(4),RE,PI,Z(80),NP,METH,ALPHA,INVIS,IPLOT,RESID         MUTUR      4
     2, CNBR,IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IOSCIL,XOSCIL,IUPWND      MUTUR      5
     3 , LAMIN,SMUIM,VARA,VARB,VARC                                     MUTUR      6
      COMMON/VARS/ Q(78,36,4),XY(78,36,4),P(78,36)                      MUTUR      7
      COMMON/LARGE/X(78,36),Y(78,36),S(78,36,4),XIT(78,36),ETT(78,36)   MUTUR      8
      LEVEL 2,X,Y,S,XIT,ETT                                             MUTUR      9
      COMMON/MUTUR/ TURMU(78,36),SNOR(80),DELST(80),TMO(80),TMI(80)     MUTUR     10
      COMMON /KINMU/ FMU(80)                                            MUTUR     11
      COMMON/IKI/JINPL                                                  SHB       84
      DIMENSION UU(80)                                                  MUTUR     12
      DIMENSION TAS(80)                                                 MUTUR     13
      DATA TURMU/ 2808*0./                                              MUTUR     14
      DATA F27,KEDGE /1.6,25/                                           MUTUR     15
      DATA FK,FKK,YDUMF /0.4,0.0168,1.0/                                MUTUR     16
      DATA FKLEB /0.3/                                                  MUTUR     17
C                                                                       MUTUR     18
C****THIS SUBROUTINE CALCULATES TURBULENT VISCOSITY FROM CEBECI-BALDWIN INLET    480
C  NOTE P(J,K) STORES TRANSFORM JACOBIAN BY WHICH DEP VARS ARE DIVIDED   MUTUR     19
      DO 80 J = 2,JM                                                    MUTUR     20
C                                                                       MUTUR     21
C     FIND VORTICITY TAS(K) AND TOTAL VELOCITY UTOT(K)                  MUTUR     22
      DO 11 K = 1,KM                                                    MUTUR     23
      TAU =.5*(XY(J,K,4)+XY(J,K+1,4))*(Q(J,K+1,2)/Q(J,K+1,1)-Q(J,K,2)   MUTUR     24
     1 /Q(J,K,1))-0.5*(XY(J,K,3)+XY(J,K+1,3))*(Q(J,K+1,3)/Q(J,K+1,1)    MUTUR     25
     2 -Q(J,K,3)/Q(J,K,1))                                              MUTUR     26
      TAX1=.5*XY(J,K  ,2)*(Q(J+1,K  ,2)/Q(J+1,K  ,1) -Q(J-1,K  ,2)      MUTUR     27
     1 /Q(J-1,K,1))                                                     MUTUR     28
     2    -.5*XY(J,K  ,1)*(Q(J+1,K  ,3)/Q(J+1,K  ,1) -Q(J-1,K  ,3)      MUTUR     29
     1 /Q(J-1,K,1))                                                     MUTUR     30
      TAX2=.5*XY(J,K+1,2)*(Q(J+1,K+1,2)/Q(J+1,K+1,1) -Q(J-1,K+1,2)      MUTUR     31
     1 /Q(J-1,K+1,1))                                                   MUTUR     32
     2    -.5*XY(J,K+1,1)*(Q(J+1,K+1,3)/Q(J+1,K+1,1) -Q(J-1,K+1,3)      MUTUR     33
     1 /Q(J-1,K+1,1))                                                   MUTUR     34
      TAXI = 0.5*(TAX1 + TAX2)                                          MUTUR     35
      TAS(K) = TAU + TAXI                                               MUTUR     36
      UTOT = Q(J,K,2)**2 + Q(J,K,3)**2                                  MUTUR     37
      UTOT = SQRT(UTOT)/Q(J,K,1)                                        MUTUR     38
      UU(K) = UTOT                                                      MUTUR     39
      TURMU(J,K) = 0.0                                                  MUTUR     40
   11 CONTINUE                                                          MUTUR     41
C                                                                       MUTUR     42
C      COMPUTE RA                                                       MUTUR     43
      K=1                                                               MUTUR     44
      WMU = .5*( FMU(1) + FMU(2))                                       MUTUR     45
      TAU = ABS(TAS(K))                                                 MUTUR     46
      RA1=RE*P(J,K)*Q(J,K,1)*TAU/WMU                                    SHB       85
      IF(RA1.LT.0.)WRITE(6,71)                                          SHB       86
      IF(RA1.LT.0.)WRITE(6,72)RE,P(J,K),Q(J,K,1),TAU,WMU                SHB       87
   71 FORMAT(1X,*FIRST PART*)                                           SHB       88
   72 FORMAT(1X,5E12.5)                                                 SHB       89
      RA = SQRT( RE*P(J,K)*Q(J,K,1)*TAU/WMU)/26.                        MUTUR     47
      IF(J .LT. JTAIL1 .OR. J .GT. JTAIL2) RA = 1000.*RA                MUTUR     48
C                                                                       MUTUR     49
C      COMPUTE NORMAL DISTANCE SNOR(K) AND Y*DUDY                       MUTUR     50
      SNOR(1) = 0.                                                      MUTUR     51
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      YDUM = 0.0                                                        MUTUR  52
      UMIN = UU(1)                                                      MUTUR  53
   60 YDUS = 0.0                                                        MUTUR  54
      DO 20 K = 2,KM                                                    MUTUR  55
      IF(UU(K) .LT. UMIN) UMIN = UU(K)                                  MUTUR  56
      SCIS = ABS(XY(J,K-1,3)*XY(J,K,3)+XY(J,K-1,4)*XY(J,K,4))           MUTUR  57
      SCAL = 1.0/SQRT(SCIS)                                             MUTUR  58
   65 SNOR(K) = SNOR(K-1) + SCAL                                        MUTUR  59
      IF(K .GT. 2) GO TO 18                                             MUTUR  60
      KM2 = 1                                                           MUTUR  61
      YDUM = 1.E-3                                                      MUTUR  62
      UM = YDUM                                                         MUTUR  63
   70 YM = 0.5*SNOR(2)                                                  MUTUR  64
   18 CONTINUE                                                          MUTUR  65
      SNORA = 0.5*(SNOR(K) + SNOR(K-1))                                 MUTUR  66
      YDU = SNORA*ABS(TAS(K-1))*(1.-EXP(-RA*SNORA))                     MUTUR  67
      IF(K .GT. KEDGE) GO TO 20                                         MUTUR  68
   75 IF(YDU .LT. YDUM) GO TO 20                                        MUTUR  69
      KM2 = K - 1                                                       MUTUR  70
      YDUM = YDU                                                        MUTUR  71
      UM = 0.5*(UU(K-1) + UU(K))                                        MUTUR  72
      YM = SNORA                                                        MUTUR  73
   80 20 CONTINUE                                                       MUTUR  74
C                                                                       MUTUR  75
C     INTERPOLATE TO FIND YM, YDUM, AND UM                              MUTUR  76
      IF(KM2 .LT. 2 .OR. KM2 .GT. KEDGE-1) GO TO 22                     MUTUR  77
      YM3 = 0.5*(SNOR(KM2+1) + SNOR(KM2+2))                             MUTUR  78
   85 YM1 = 0.5*(SNOR (KM2-1) + SNOR (KM2))                             MUTUR  79
      YDUM1 = YM1*ABS(TAS(KM2-1))*(1.0 - EXP(-RA*YM1))                  MUTUR  80
      YDUM3 = YM3*ABS(TAS(KM2+1))*(1.0 - EXP(-RA*YM3))                  MUTUR  81
      C2 = YDUM - YDUM1                                                 MUTUR  82
      C3 = YDUM3 - YDUM                                                 MUTUR  83
   90 DY1 = YM - YM1                                                    MUTUR  84
      DY3 = YM3 - YM                                                    MUTUR  85
      AM = (DY3*DY3*C2 + DY1*DY1*C3)/(DY1*DY3*(DY1+DY3))                MUTUR  86
      BM = (DY1*C3 - DY3*C2)/(DY1*DY3*(DY1 + DY3))                      MUTUR  87
      IF(BM .GE. 0.) GO TO 22                                           MUTUR  88
   95 YMM = YM - 0.5*AM/BM                                              MUTUR  89
      YDU  = YDUM - 0.25*AM*AM/BM                                       MUTUR  90
      YMM = YM - 0.5*AM/BM                                              MUTUR  91
      IF(YDU .LT. YDUM .OR. YMM .LT. YM1 .OR. YMM .GT. YM3) GO TO 22    MUTUR  92
      YDUM = YDU                                                        MUTUR  93
  100 YM = YMM                                                          MUTUR  94
      IF(YM .GT. SNOR(KM2+1)) KM2 = KM2 + 1                             MUTUR  95
      IF(YM .LT. SNOR(KM2)) KM2 = KM2 - 1                               MUTUR  96
      UM = ((SNOR(KM2+1) - YM)*UU(KM2)+(YM-SNOR(KM2))*UU(KM2+1))        MUTUR  97
     1 /(SNOR(KM2+1) - SNOR(KM2))                                       MUTUR  98
  105 22 CONTINUE                                                       MUTUR  99
C                                                                       MUTUR 100
C      COMPUTE OUTER EDDY VISCOSITY                                     MUTUR 101
      DO 25 K=1,KEDGE                                                   MUTUR 102
      SNOR(K) = 0.5*(SNOR(K) + SNOR(K+1))                               MUTUR 103
  110 FFC = FKK*F27*RE*Q(J,K,1)*P(J,K)                                  MUTUR 104
      TMO(K) = FFC*YM*YDUM                                              MUTUR 105
      FFCWK = YDUMF*YDUMF*FFC                                           MUTUR 106
      UDIFF = ABS(UM - UMIN)                                            MUTUR 107
      IF(YDUM .GT. UDIFF*YDUMF) TMO(K) = FFCWK*YM*UDIFF*UDIFF/YDUM      MUTUR 108
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      FIA = FKLEB*SNOR(K)/YM                                            MUTUR    109
      IF(FIA .GT. 1.E5) FIA = 1.E5                                      MUTUR    110
      FI = 1.0 + 5.5*FIA**6                                             MUTUR    111
      TMO(K) = TMO(K)/FI                                                MUTUR    112
      TMO(K) = ABS(TMO(K))                                              MUTUR    113
   25 CONTINUE                                                          MUTUR    114
C                                                                       MUTUR    115
C      COMPUTE INNNER EDDY VISCOSITY                                    MUTUR    116
      DO 30 K=1,KEDGE                                                   MUTUR    117
      TAU = ABS(TAS(K))                                                 MUTUR    118
      TMI(K) =P(J,K)*Q(J,K,1)*RE*TAU*(FK*SNOR(K)*(1.-EXP(-RA            MUTUR    119
     1  *SNOR(K))))**2                                                  MUTUR    120
      TMI(K) = ABS(TMI(K))                                              MUTUR    121
   30 CONTINUE                                                          MUTUR    122
C                                                                       MUTUR    123
C      LOAD VISCOSITY COEFFS. INTO ARRAY. USE INNER VALUE UNTIL         MUTUR    124
C      MATCH POINT IS REACHED                                           MUTUR    125
      K = 1                                                             MUTUR    126
   40 TURMU(J,K) = TMI(K)                                               MUTUR    127
      K = K +1                                                          MUTUR    128
      IF( K.GT. KEDGE) GO TO 10                                         MUTUR    129
      IF( TMI(K) .LE. TMO(K)) GO TO 40                                  MUTUR    130
   41 TURMU(J,K) = TMO(K)                                               MUTUR    131
      K = K +1                                                          MUTUR    132
      IF( K.LE. KEDGE) GO TO 41                                         MUTUR    133
   10 CONTINUE                                                          MUTUR    134
C                                                                       MUTUR    135
C     REARRANGE TURMU(K) SUCH THAT WHEN AVERAGED AT K AND K+1           MUTUR    136
C        THE CORRECT MIDWAY VALUE WILL BE OBTAINED                      MUTUR    137
      SMP = TURMU(J,1)                                                  MUTUR    138
      DO 60 K = 2,KMAX                                                  MUTUR    139
      TURMS = TURMU(J,K)                                                MUTUR    140
      TURMU(J,K) = 2.0*SMP - TURMU(J,K-1)                               MUTUR    141
   60 SMP = TURMS                                                       MUTUR    142
   80 CONTINUE                                                          MUTUR    143
      KEDGE1=KEDGE                                                      SHB       90
      DO 83 J=2,JINPL                                                   SHB       91
C    FIND VORTICITY TAS(K) AND TOTAL VELOCITY UTOT(K) FOR RAMP          SHB       92
      DO 15 KK=1,KEDGE                                                  SHB       93
      K=KMAX-KK+1                                                       SHB       94
      TAU=-.5*(XY(J,K,4)+XY(J,K-1,4))*(Q(J,K-1,2)/Q(J,K-1,1)-Q(J,K,2)   SHB       95
     </Q(J,K,1))+.5*(XY(J,K,3)+XY(J,K-1,3))*(Q(J,K-1,3)/Q(J,K-1,1)      SHB       96
     <-Q(J,K,3)/Q(J,K,1))                                               SHB       97
      TAX1=.5*XY(J,K,2)*(Q(J+1,K,2)/Q(J+1,K,1)-Q(J-1,K,2)               SHB       98
     </Q(J-1,K,1))                                                      SHB       99
     <-.5*XY(J,K,1)*(Q(J+1,K,3)/Q(J+1,K,1)-Q(J-1,K,3)                   SHB      100
     </Q(J-1,K,1))                                                      SHB      101
      TAX2=.5*XY(J,K-1,2)*(Q(J+1,K-1,2)/Q(J+1,K-1,1)-Q(J-1,K-1,2)       SHB      102
     </Q(J-1,K-1,1))                                                    SHB      103
     <-.5*XY(J,K-1,1)*(Q(J+1,K-1,3)/Q(J+1,K-1,1)-Q(J-1,K-1,3)           SHB      104
     </Q(J-1,K-1,1))                                                    SHB      105
      TAXI=.5*(TAX1+TAX2)                                               SHB      106
      TAS(K)=TAU+TAXI                                                   SHB      107
      UTOT=Q(J,K,2)**2+Q(J,K,3)**2                                      SHB      108
      UTOT=SQRT(UTOT)/Q(J,K,1)                                          SHB      109
      UU(K)=UTOT                                                        SHB      110
      TURMU(J,K)=0.                                                     SHB      111
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   15 CONTINUE                                                          SHB     112
C    FOR UPPER WALL COMPUTE RA                                          SHB     113
      K=KMAX                                                            SHB     114
      KM=KMAX-1                                                         SHB     115
      WMU=.5*(FMU(KM)+FMU(K))                                           SHB     116
      TAU=ABS(TAS(K))                                                   SHB     117
      RA1=RE*P(J,K)*Q(J,K,1)*TAU/WMU                                    SHB     118
      IF(RA1.LT.0.)WRITE(6,73)                                          SHB     119
      IF(RA1.LT.0.)WRITE(6,72)RE,P(J,K),Q(J,K,1),TAU,WMU                SHB     120
   73 FORMAT(1X,*SECOND PART*)                                          SHB     121
      RA=SQRT(RE*P(J,K)*Q(J,K,1)*TAU/WMU)/26.                           SHB     122
      IF(J.LT.JTAIL1.OR.J.GT.JINPL)RA =1000.*RA                         SHB     123
C                                                                       SHB     124
C     THIS PORTION IS FOR THE RAMP                                      SHB     125
C    COMPUTE NORMAL DISTANCE SNOR(K)                                    SHB     126
      SNOR(KMAX)=0.                                                     SHB     127
      YDUM=0.                                                           SHB     128
      UMIN=UU(KMAX)                                                     SHB     129
      YDUS=0.                                                           SHB     130
      KEDGE=KMAX/2                                                      SHB     131
      DO 13 KK=2,KEDGE                                                  SHB     132
      K=KMAX-KK+1                                                       SHB     133
      IF(UU(K).LT.UMIN)UMIN=UU(K)                                       SHB     134
      SCIS=ABS(XY(J,K,3)*XY(J,K+1,3)+XY(J,K+1,4)*XY(J,K,4))             SHB     135
      SCAL=1./SQRT(SCIS)                                                SHB     136
      SNOR(K)=SNOR(K+1)+SCAL                                            SHB     137
      IF(K.LT.KM)GO TO 12                                               SHB     138
      KM2=KMAX                                                          SHB     139
      YDUM=1.E-3                                                        SHB     140
      UM=YDUM                                                           SHB     141
      YM=.5*SNOR(KM)                                                    SHB     142
   12 CONTINUE                                                          SHB     143
      SNORA=.5*(SNOR(K)+SNOR(K+1))                                      SHB     144
      YDU=SNORA*ABS(TAS(K+1))*(1.-EXP(-RA*SNORA))                       SHB     145
      IF(K.LT.KEDGE)GO TO 13                                            SHB     146
      IF(YDU.LT.YDUM)GO TO 13                                           SHB     147
      KM2=K+1                                                           SHB     148
      YDUM=YDU                                                          SHB     149
      UM=.5*(UU(K+1)+UU(K))                                             SHB     150
      YM=SNORA                                                          SHB     151
   13 CONTINUE                                                          SHB     152
C                                                                       SHB     153
C    INTERPOLATE FOR THE RAMP TO FIND YM1,YDUM1,UM1                     SHB     154
      IF(KM2.GT.KM.OR.KM2.LT.KEDGE-1)GO TO 14                           SHB     155
      YM3=.5*(SNOR(KM2-1)+SNOR(KM2-2))                                  SHB     156
      YM1=.5*(SNOR(KM2+1)+SNOR(KM2))                                    SHB     157
      YDUM1=YM1*ABS(TAS(KM2+1))*(1.-EXP(-RA*YM1))                       SHB     158
      YDUM3=YM3*ABS(TAS(KM2-1))*(1.-EXP(-RA*YM3))                       SHB     159
      C2=YDUM-YDUM1                                                     SHB     160
      C3=YDUM3-YDUM1                                                    SHB     161
      DY1=YM-YM1                                                        SHB     162
      DY3=YM3-YM                                                        SHB     163
      AM=(DY3*DY3*C2+DY1*DY1*C3)/(DY1*DY3*(DY1+DY3))                    SHB     164
      BM=(DY1*C3-DY3*C2)/(DY1*DY3*(DY1+DY3))                            SHB     165
      IF(BM.GE.0.)GO TO 14                                              SHB     166
      YMM=YM-.5*AM/BM                                                   SHB     167
      YDU=YDUM-.25*AM*AM/BM                                             SHB     168
```

```
      YMM=YM-.5*AM/BM                                                   SHB     169
      IF(YDU.LT.YDUM.OR.YMM.LT.YM1.OR.YMM.GT.YM3)GO TO 14               SHB     170
      YDUM=YDU                                                          SHB     171
      YM=YMM                                                            SHB     172
      IF(YM.GT.SNOR(KM2+1))KM2=KM2-1                                    SHB     173
      IF(YM.LT.SNOR(KM2))KM2=KM2+1                                      SHB     174
      UM=((SNOR(KM2-1)-YM)*UU(KM2)+(YM-SNOR(KM2))*UU(KM2-1))            SHB     175
     </(SNOR(KM2-1)-SNOR(KM2))                                          SHB     176
   14 CONTINUE                                                          SHB     177
C                                                                       SHB     178
C     COMPUTE OUTER EDDY VISCOSITY FOR RAMP                             SHB     179
      DO 26 KK=1.KEDGE                                                  SHB     180
      K=KMAX-KK+1                                                       SHB     181
      SNOR(K)=.5*(SNOR(K)+SNOR(K-1))                                    SHB     182
      FFC=FKK*F27*RE*Q(J.K.1)*P(J.K)                                    SHB     183
      TMO(K)=FFC*YM*YDUM                                                SHB     184
      FFCWK=YDUMF*YDUMF*FFC                                             SHB     185
      UDIFF=ABS(UM-UMIN)                                                SHB     186
      IF(YDUM.GT.UDIFF*YDUMF)TMO(K)=FFCWK*YM*UDIFF*UDIFF/YDUM           SHB     187
      FIA=FKLEB*SNOR(K)/YM                                              SHB     188
      IF(FIA.GT.1.E5)FIA=1.E5                                           SHB     189
      FI=1.+5.5*FIA**6                                                  SHB     190
      TMO(K)=TMO(K)/FI                                                  SHB     191
      TMO(K)=ABS(TMO(K))                                                SHB     192
   26 CONTINUE                                                          SHB     193
C    COMPUTE INNER EDDY VISCOSITY FOR RAMP                              SHB     194
      DO 27 KK=1.KEDGE                                                  SHB     195
      K=KMAX-KK+1                                                       SHB     196
      TAU=ABS(TAS(K))                                                   SHB     197
      TMI(K)=P(J.K)*Q(J.K.1)*RE*TAU*(FK*SNOR(K)*(1.-EXP(-RA             SHB     198
     <*SNOR(K))))**2                                                    SHB     199
      TMI(K)=ABS(TMI(K))                                                SHB     200
   27 CONTINUE                                                          SHB     201
C    LOAD VISCOSITY COEFF. INTO ARRAY                                   SHB     202
      K=KMAX                                                            SHB     203
   42 TURMU(J.K)=TMI(K)                                                 SHB     204
      K=K-1                                                             SHB     205
      IF(K.LT.KEDGE)GO TO 43                                            SHB     206
      IF(TMI(K).LE.TMO(K))GO TO 42                                      SHB     207
   44 TURMU(J.K)=TMO(K)                                                 SHB     208
      K=K+1                                                             SHB     209
      IF(K.LE.KEDGE)GO TO 44                                            SHB     210
   43 CONTINUE                                                          SHB     211
C                                                                       SHB     212
C    REARRANGE TURMU(K)                                                 SHB     213
      SMP=TURMU(J.KMAX)                                                 SHB     214
      DO 61 KK=2.KEDGE                                                  SHB     215
      K=KMAX-KK+1                                                       SHB     216
      TURMS=TURMU(J.K)                                                  SHB     217
      TURMU(J.K)=2.*SMP-TURMU(J.K-1)                                    SHB     218
   61 SMP=TURMS                                                         SHB     219
   83 CONTINUE                                                          SHB     220
C                                                                       SHB     221
      KMAXM5=KMAX-KEDGE1                                                SHB     222
      JINP1=JINPL+1                                                     SHB     223
      DO 70 J=JINP1.JM                                                  SHB     224
      DO 70 K=KMAXM5.KMAX                                               SHB     225
```

```
                      TURMU(J,K)=TURMU(J,K-1)                          SHB     226
                   70 CONTINUE                                         SHB     227
                      KEDGE=KEDGE1                                     SHB     228
                      RETURN                                           MUTUR   144
290                   END                                              MUTUR   145
```

APPENDIX B

```
 NMAX,JMAX, KMAX,NP,METH,IREAD,INVIS        2    73    36     1     0     1     1

 IREGO,ISTORE,NF,NB,JTAIL1,JTAIL2,IPLOT     1     1     0     0     2    72     0

 IUPWND,IOSCIL,LAMIN        1     0     1

 CNBR,FSMACH,SMU,EPS,RE,ALPHA
  1.0000000000   3.5000000000     .1000000000   0.0000000000**************   0.0000000000

 XOSCIL
    .100000E+01
        U,V,RHO,EN  .45401E+01  .37856E+00  .13365E+01  .10452E+02
K=    1
  .17355E+03  .17355E+03  .17355E+03  .17355E+03  .17355E+03  .17313E+03  .17263E+03  .17212E+03
  .17159E+03  .17103E+03  .17045E+03  .16976E+03  .19573E+03  .22514E+03  .28020E+03  .33753E+03
  .33657E+03  .33745E+03  .35363E+03  .67898E+03  .88777E+03  .22532E+04  .30112E+04  .27922E+04
  .27186E+04  .26848E+04  .26738E+04  .26765E+04  .26923E+04  .27102E+04  .27400E+04  .27896E+04
  .28227E+04  .28815E+04  .29553E+04  .30262E+04  .31172E+04  .32482E+04  .33886E+04  .35387E+04
  .39086E+04  .39882E+04  .27518E+04  .26489E+04  .26093E+04  .24941E+04  .25785E+04  .20887E+04
  .78642E+04  .34719E+05  .45971E+05  .73614E+06  .45686E+05  .36781E+05  .12442E+05  .36459E+04
  .28970E+04  .28900E+04  .29561E+04  .22470E+04  .14909E+04  .14685E+04  .14733E+04  .14921E+04
  .15400E+04  .12348E+04  .79763E+03  .77962E+03  .78257E+03  .79864E+03  .64580E+03  .39362E+03
  .37307E+03
K=    2
  .97674E+02  .97674E+02  .97674E+02  .97674E+02  .97674E+02  .97809E+02  .97968E+02  .98135E+02
  .98308E+02  .98488E+02  .98600E+02  .98811E+02  .11450E+03  .13237E+03  .16528E+03  .19948E+03
  .19932E+03  .20042E+03  .21053E+03  .40155E+03  .52766E+03  .13297E+04  .17858E+04  .16534E+04
  .16132E+04  .15994E+04  .15966E+04  .16003E+04  .16111E+04  .16227E+04  .16405E+04  .16675E+04
  .16831E+04  .17014E+04  .17269E+04  .17508E+04  .17865E+04  .18209E+04  .18641E+04  .19243E+04
  .21004E+04  .21157E+04  .14578E+04  .13981E+04  .13716E+04  .13109E+04  .13542E+04  .11036E+04
  .40700E+04  .17555E+05  .23973E+05  .12982E+06  .22085E+05  .17913C+05  .61553E+04  .18533E+04
  .14662E+04  .14547E+04  .14860E+04  .11301E+04  .75148E+03  .73850E+03  .73820E+03  .74380E+03
  .76221E+03  .60620E+03  .38924E+03  .37689E+03  .37678E+03  .38503E+03  .31341E+03  .19464E+03
  .18802E+03
K=    3
  .62643E+02  .62643E+02  .62643E+02  .62643E+02  .62643E+02  .62872E+02  .63144E+02  .63428E+02
  .63727E+02  .64038E+02  .64350E+02  .64671E+02  .75171E+02  .87177E+02  .10906E+03  .13177E+03
  .13185E+03  .13282E+03  .13976E+03  .26539E+03  .34985E+03  .87642E+03  .11789E+04  .10924E+04
  .10677E+04  .10613E+04  .10610E+04  .10644E+04  .10722E+04  .10804E+04  .10923E+04  .11091E+04
  .11178E+04  .11231E+04  .11326E+04  .11414E+04  .11579E+04  .11648E+04  .11793E+04  .12090E+04
  .13090E+04  .13091E+04  .90300E+03  .86412E+03  .84588E+03  .80846E+03  .83633E+03  .68600E+03
  .24837E+04  .10113E+05  .13629E+05  .39077E+05  .12135E+05  .10066E+05  .36381E+04  .11259E+04
  .88692E+03  .87585E+03  .89245E+03  .67984E+03  .45336E+03  .44460E+03  .44341E+03  .44543E+03
  .45437E+03  .36009E+03  .23067E+03  .22220E+03  .22162E+03  .22653E+03  .18509E+03  .11615E+03
  .11332E+03
K=    4
  .40194E+02  .40194E+02  .40194E+02  .40194E+02  .40194E+02  .40433E+02  .40717E+02  .41016E+02
  .41330E+02  .41660E+02  .41994E+02  .42352E+02  .49378E+02  .57441E+02  .71996E+02  .87085E+02
  .87267E+02  .88085E+02  .92853E+02  .17542E+03  .23207E+03  .57668E+03  .77698E+03  .72156E+03
  .70662E+03  .70430E+03  .70532E+03  .70822E+03  .71387E+03  .71969E+03  .72757E+03  .73003E+03
  .74273E+03  .74170E+03  .74318E+03  .74436E+03  .75083E+03  .74531E+03  .74626E+03  .75971E+03
  .81498E+03  .80863E+03  .55949E+03  .53420E+03  .52176E+03  .49875E+03  .51718E+03  .42876E+03
  .15069E+04  .56362E+04  .75073E+04  .13396E+05  .63873E+04  .54364E+04  .21166E+04  .68553E+03
  .53731E+03  .52727E+03  .53504E+03  .40866E+03  .27366E+03  .26778E+03  .26637E+03  .26669E+03
  .27060E+03  .21377E+03  .13678E+03  .13103E+03  .13036E+03  .13323E+03  .10927E+03  .69343E+02
  .68332E+02
K=    5
  .25808E+02  .25808E+02  .25808E+02  .25808E+02  .25808E+02  .26021E+02  .26275E+02  .26543E+02
  .26826E+02  .27124E+02  .27428E+02  .27760E+02  .32462E+02  .37885E+02  .47568E+02  .57598E+02
  .57815E+02  .58481E+02  .61770E+02  .11599E+03  .15407E+03  .37852E+03  .51087E+03  .47643E+03
  .46770E+03  .46752E+03  .46904E+03  .47146E+03  .47555E+03  .47969E+03  .48496E+03  .49143E+03
  .49385E+03  .49014E+03  .48795E+03  .48575E+03  .48712E+03  .47713E+03  .47244E+03  .47754E+03
  .50671E+03  .49817E+03  .34678E+03  .33036E+03  .32194E+03  .30786E+03  .32047E+03  .27029E+03
  .90469E+03  .29385E+04  .37806E+04  .49662E+04  .31817E+04  .27831E+04  .12022E+04  .41867E+03
  .32628E+03  .31738E+03  .31986E+03  .24531E+03  .16548E+03  .16139E+03  .16003E+03  .15962E+03
  .16091E+03  .12678E+03  .81168E+02  .77306E+02  .76690E+02  .78309E+02  .64471E+02  .41432E+02
```

.41231E+02

K= 6

.16589E+02 .16589E+02 .16589E+02 .16589E+02 .16589E+02 .16764E+02 .16975E+02 .17197E+02
.17432E+02 .17681E+02 .17936E+02 .18220E+02 .21370E+02 .25022E+02 .31466E+02 .38140E+02
.38357E+02 .38690E+02 .41171E+02 .76719E+02 .10240E+03 .24758E+03 .33476E+03 .31440E+03
.30958E+03 .31046E+03 .31210E+03 .31408E+03 .31705E+03 .32003E+03 .32358E+03 .32754E+03
.32871E+03 .32423E+03 .32067E+03 .31729E+03 .31631E+03 .30567E+03 .29929E+03 .30030E+03
.31439E+03 .30567E+03 .21505E+03 .20442E+03 .19874E+03 .19021E+03 .19921E+03 .17260E+03
.51991E+03 .14619E+04 .17855E+04 .19495E+04 .15041E+04 .13272E+04 .65916E+03 .25662E+03
.19883E+03 .19098E+03 .19039E 03 .14693E+03 .10032E+03 .97369E+02 .96173E+02 .95489E+02
.95442E+02 .75064E+02 .48237E 2 .45641E+02 .45123E+02 .45981E+02 .38004E+02 .24789E+02
.24906E+02

K= 7

.10681E+02 .10681E+02 .10681E+02 .10681E+02 .10681E+02 .10819E+02 .10985E+02 .11161E+02
.11348E+02 .11547E+02 .11752E+02 .11984E+02 .14095E+02 .16562E+02 .20853E+02 .25300E+02
.25502E+02 .25925E+02 .27520E+02 .50776E+02 .68170E+02 .16113E+03 .21834E+03 .20729E+03
.20494E+03 .20628E+03 .20785E+03 .20947E+03 .21165E+03 .21382E+03 .21623E+03 .21864E+03
.21914E+03 .21481E+03 .21104E+03 .20754E+03 .20566E+03 .19605E+03 .18979E+03 .18896E+03
.19450E+03 .18644E+03 .13348E+03 .12660E+03 .12278E+03 .11772E+03 .12441E+03 .11186E+03
.30317E+03 .70799E+03 .80180E+03 .79825E+03 .68234E+03 .60807E+03 .33653E+03 .15724E+03
.12172E+03 .11485E+03 .11258E+03 .87696E+02 .61065E+02 .58847E+02 .57817E+02 .57071E+02
.56384E+02 .44328E+02 .28733E+02 .26978E+02 .26556E+02 .26955E+02 .22367E+02 .14864E+02
.15072E+02

K= 8

.68950E+01 .68950E+01 .68950E+01 .68950E+01 .68950E+01 .70009E+01 .71286E+01 .72642E+01
.74085E+01 .75626E+01 .77225E+01 .79071E+01 .93248E+01 .10997E+02 .13858E+02 .16827E+02
.17010E+02 .17346E+02 .18474E+02 .33638E+02 .45498E+02 .10417E+03 .14152E+03 .13650E+03
.13568E+03 .13716E+03 .13860E+03 .13993E+03 .14155E+03 .14316E+03 .14481E+03 .14627E+03
.14643E+03 .14264E+03 .13920E+03 .13604E+03 .13398E+03 .12595E+03 .12051E+03 .11900E+03
.11989E+03 .11279E+03 .82944E+02 .78516E+02 .75958E+02 .73089E+02 .78117E+02 .74723E+02
.18389E+03 .33803E+03 .35294E+03 .33780E+03 .30422E+03 .27503E+03 .16825E+03 .95549E+02
.74803E+02 .68969E+02 .65960E+02 .52046E+02 .37389E+02 .35661E+02 .34778E+02 .34061E+02
.33109E+02 .26067E+02 .17178E+02 .15977E+02 .15636E+02 .15761E+02 .13130E+02 .89463E+01
.91492E+01

K= 9

.44691E+01 .44691E+01 .44691E+01 .44691E+01 .44691E+01 .45487E+01 .46450E+01 .47476E+01
.48572E+01 .49746E+01 .50973E+01 .52420E+01 .61969E+01 .73370E+01 .92481E+01 .11237E+02
.11400E+02 .11670E+02 .12481E+02 .22317E+02 .30479E+02 .66762E+02 .91045E+02 .89720E+02
.89833E+02 .91318E+02 .92604E+02 .93700E+02 .94933E+02 .96147E+02 .97308E+02 .98175E+02
.98186E+02 .95045E+02 .92103E+02 .89457E+02 .87519E+02 .81093E+02 .76653E+02 .75124E+02
.74135E+02 .67519E+02 .51592E+02 .48795E+02 .47055E+02 .45702E+02 .49340E+02 .52361E+02
.11350E+03 .16016E+03 .15651E+03 .14769E+03 .13630E+03 .12500E+03 .86073E+02 .58008E+02
.45905E+02 .41256E+02 .38245E+02 .30452E+02 .23063E+02 .21694E+02 .20937E+02 .20282E+02
.19277E+02 .15227E+02 .10327E+02 .91907E+01 .92117E+01 .91809E+01 .76771E+01 .54164E+01
.55813E+01

K= 10

.29147E+01 .29147E+01 .29147E+01 .29147E+01 .29147E+01 .29740E+01 .30460E+01 .31229E+01
.32052E+01 .32939E+01 .33872E+01 .35001E+01 .41460E+01 .49303E+01 .62093E+01 .75497E+01
.76949E+01 .79147E+01 .85094E+01 .14832E+02 .20522E+02 .42366E+02 .58420E+02 .58822E+02
.59468E+02 .60895E+02 .62044E+02 .62969E+02 .63930E+02 .64868E+02 .65704E+02 .66221E+02
.66170E+02 .63652E+02 .61240E+02 .59101E+02 .57409E+02 .52392E+02 .48810E+02 .47174E+02
.45364E+02 .39962E+02 .32132E+02 .30444E+02 .29292E+02 .28871E+02 .31371E+02 .39422E+02
.67632E+02 .75671E+02 .71088E+02 .66758E+02 .62361E+02 .58356E+02 .45051E+02 .34562E+02
.27872E+02 .24411E+02 .22002E+02 .17864E+02 .14321E+02 .13262E+02 .12618E+02 .12038E+02
.11121E+02 .87634E+01 .62526E+01 .56637E+01 .54330E+01 .53264E+01 .44539E+01 .33111E+01
.34323E+01

K= 11

.19191E+01 .19191E+01 .19191E+01 .19191E+01 .19191E+01 .19632E+01 .20168E+01 .20742E+01
.21360E+01 .22027E+01 .22736E+01 .23621E+01 .28022E+01 .33483E+01 .42091E+01 .51185E+01
.52487E+01 .54313E+01 .58813E+01 .99010E+01 .13928E+02 .26547E+02 .36895E+02 .38206E+02
.39311E+02 .40695E+02 .41741E+02 .42543E+02 .43321E+02 .44065E+02 .44687E+02 .45008E+02
.44937E+02 .42953E+02 .41023E+02 .39322E+02 .37885E+02 .34007E+02 .31133E+02 .29434E+02
.27355E+02 .23728E+02 .20127E+02 .19116E+02 .18429E+02 .18633E+02 .20425E+02 .31135E+02
.37062E+02 .36073E+02 .33386E+02 .31307E+02 .29411E+02 .27907E+02 .23633E+02 .19836E+02
.16464E+02 .14246E+02 .12626E+02 .10592E+02 .89278E+01 .81383E+01 .75986E 01 .70935E+01

.63637E+01	.50470E+01	.38168E+01	.33970E+01	.32034E+01	.30697E+01	.25785E+01	.20542E+01
.21385E+01							
K= 12							
.12819E+01	.12819E+01	.12819E+01	.12819E+01	.12819E+01	.13147E+01	.13548E+01	.13979E+01
.14444E+01	.14949E+01	.15490E+01	.16192E+01	.19226E+01	.23093E+01	.28940E+01	.35172E+01
.36352E+01	.37906E+01	.41442E+01	.66714E+01	.95576E+01	.16671E+02	.23043E+02	.24681E+02
.25971E+02	.27292E+02	.28257E+02	.28975E+02	.29630E+02	.30239E+02	.30719E+02	.30936E+02
.30863E+02	.29313E+02	.27781E+02	.26427E+02	.25199E+02	.22180E+02	.19814E+02	.18215E+02
.16441E+02	.14301E+02	.12750E+02	.12170E+02	.11880E+02	.12555E+02	.14385E+02	.21458E+02
.19049E+02	.17641E+02	.16299E+02	.15274E+02	.14371E+02	.13720E+02	.12267E+02	.10887E+02
.93739E+01	.81814E+01	.72885E+01	.63314E+01	.55422E+01	.49969E+01	.45687E+01	.41560E+01
.36341E+01	.29412E+01	.23476E+01	.20481E+01	.18879E+01	.17612E+01	.15044E+01	.13016E+01
.13604E+01							
K= 13							
.87463E+00	.87463E+00	.87463E+00	.87463E+00	.87463E+00	.89942E+00	.92976E+00	.96248E+00
.99792E+00	.10366E+01	.10785E+01	.11351E+01	.13481E+01	.16282E+01	.20215E+01	.24653E+01
.25732E+01	.27091E+01	.29988E+01	.45719E+01	.66572E+01	.10628E+02	.[illegible]+02	.15925E+02
.17192E+02	.18423E+02	.19319E+02	.19976E+02	.20549E+02	.21063E+02	.21[illegible]	.21615E+02
.21546E+02	.20331E+02	.19108E+02	.18010E+02	.16925E+02	.14539E+02	.126[illegible]	.11272E+02
.10033E+02	.88500E+01	.82412E+01	.80006E+01	.81386E+01	.90076E+01	.10[illegible]+02	.11522E+02
.97456E+01	.89787E+01	.83260E+01	.77948E+01	.73176E+01	.69660E+01	.63829E+01	.58276E+01
.51838E+01	.46352E+01	.42229E+01	.37846E+01	.33997E+01	.30529E+01	.27424E+01	.24396E+01
.21053E+01	.17445E+01	.14466E+01	.12396E+01	.11153E+01	.10197E+01	.90020E+00	.84751E+00
.89235E+00							
K= 14							
.61546E+00	.61546E+00	.61546E+00	.61546E+00	.61546E+00	.63457E+00	.65802E+00	.68339E+00
.71096E+00	.74120E+00	.77446E+00	.82130E+00	.97474E+00	.11839E+01	.14691E+01	.17779E+01
.18776E+01	.19998E+01	.22475E+01	.32239E+01	.47341E+01	.69737E+01	.92975E+01	.10416E+02
.11514E+02	.12609E+02	.13432E+02	.14040E+02	.14554E+02	.15001E+02	.15331E+02	.15467E+02
.15390E+02	.14432E+02	.13431E+02	.12507E+02	.11522E+02	.96284E+01	.81075E+01	.71439E+01
.63718E+01	.57357E+01	.55840E+01	.56515E+01	.60069E+01	.62499E+01	.62711E+01	.58693E+01
.52055E+01	.48311E+01	.44967E+01	.42011E+01	.39250E+01	.37082E+01	.34179E+01	.31485E+01
.28574E+01	.26178E+01	.24464E+01	.22494E+01	.20606E+01	.18569E+01	.16543E+01	.14554E+01
.12535E+01	.10554E+01	.89140E+00	.75473E+00	.66870E+00	.61032E+00	.56307E+00	.56873E+00
.60788E+00							
K= 15							
.45220E+00	.45220E+00	.45220E+00	.45220E+00	.45220E+00	.46739E+00	.48609E+00	.50637E+00
.52850E+00	.55289E+00	.58012E+00	.62009E+00	.73505E+00	.89731E+00	.11070E+01	.13345E+01
.14274E+01	.15400E+01	.17601E+01	.23774E+01	.34758E+01	.48011E+01	.62654E+01	.70666E+01
.79485E+01	.88819E+01	.96199E+01	.10179E+02	.10647E+02	.11045E+02	.11333E+02	.11451E+02
.11375E+02	.10579E+02	.97258E+01	.89178E+01	.80280E+01	.65509E+01	.54254E+01	.47775E+01
.43289E+01	.40024E+01	.40627E+01	.40983E+01	.40386E+01	.37791E+01	.35286E+01	.32493E+01
.29968E+01	.28023E+01	.26136E+01	.24336E+01	.22593E+01	.21142E+01	.19422E+01	.17855E+01
.16313E+01	.15151E+01	.14394E+01	.13487E+01	.12552E+01	.11407E+01	.10181E+01	.89486E+00
.77220E+00	.65419E+00	.55541E+00	.46825E+00	.41438E+00	.38348E+00	.36881E+00	.39220E+00
.42994E+00							
K= 16							
.35197E+00	.35197E+00	.35197E+00	.35197E+00	.35197E+00	.36458E+00	.38013E+00	.39705E+00
.41555E+00	.43606E+00	.45929E+00	.49462E+00	.58546E+00	.71763E+00	.88063E+00	.10567E+01
.11441E+01	.12503E+01	.14518E+01	.18637E+01	.26811E+01	.35265E+01	.45193E+01	.51048E+01
.58034E+01	.65875E+01	.72396E+01	.77502E+01	.81784E+01	.85375E+01	.87920E+01	.88893E+01
.87949E+01	.81031E+01	.73399E+01	.66185E+01	.58284E+01	.46981E+01	.38974E+01	.34518E+01
.31785E+01	.29420E+01	.28754E+01	.26951E+01	.25024E+01	.23245E+01	.21736E+01	.20290E+01
.19135E+01	.17977E+01	.16771E+01	.15951E+01	.14335E+01	.13280E+01	.12111E+01	.11052E+01
.10075E+01	.93881E+00	.89569E+00	.84707E+00	.79624E+00	.72960E+00	.65469E+00	.57697E+00
.49846E+00	.42269E+00	.35851E+00	.30182E+00	.26816E+00	.25170E+00	.24944E+00	.27588E+00
.31470E+00							
K= 17							
.29459E+00	.29459E+00	.29459E+00	.29459E+00	.29459E+00	.30564E+00	.31929E+00	.33417E+00
.35047E+00	.36862E+00	.38943E+00	.42190E+00	.49874E+00	.61299E+00	.74916E+00	.89510E+00
.97852E+00	.10806E+01	.12694E+01	.15714E+01	.22144E+01	.28082E+01	.35510E+01	.40204E+01
.46003E+01	.52790E+01	.58655E+01	.63376E+01	.67338E+01	.70599E+01	.72817E+01	.73505E+01
.72225E+01	.65749E+01	.58584E+01	.52016E+01	.44776E+01	.36260E+01	.30424E+01	.26624E+01
.24082E+01	.21536E+01	.20115E+01	.18608E+01	.17201E+01	.16316E+01	.15476E+01	.14621E+01
.13954E+01	.13146E+01	.12258E+01	.11319E+01	.10361E+01	.95057E+00	.85923E+00	.77675E+00

.70296E+00	.65239E+00	.61821E+00	.58422E+00	.55043E+00	.50635E+00	.45601E+00	.40264E+00
.34778E+00	.29458E+00	.24861E+00	.20820E+00	.18439E+00	.17315E+00	.17367E+00	.19694E+00
.23508E+00							
K= 18							
.26853E+00	.26853E+00	.26853E+00	.26853E+00	.26853E+00	.27885E+00	.29160E+00	.30551E+00
.32078E+00	.33782E+00	.35749E+00	.38859E+00	.45902E+00	.56490E+00	.68885E+00	.82086E+00
.90192E+00	.10014E+01	.11826E+01	.14334E+01	.19861E+01	.24557E+01	.30777E+01	.35101E+01
.40402E+01	.46740E+01	.52326E+01	.56874E+01	.60634E+01	.63605E+01	.65450E+01	.65689E+01
.63671E+01	.57168E+01	.49988E+01	.43848E+01	.38641E+01	.30328E+01	.25706E+01	.21987E+01
.19502E+01	.17333E+01	.16181E+01	.15084E+01	.13987E+01	.13529E+01	.13017E+01	.12417E+01
.11949E+01	.11292E+01	.10535E+01	.97031E+00	.88259E+00	.80234E+00	.71846E+00	.64253E+00
.57514E+00	.52840E+00	.49171E+00	.46020E+00	.43181E+00	.39706E+00	.35813E+00	.31675E+00
.27397E+00	.23249E+00	.19596E+00	.16309E+00	.14221E+00	.13084E+00	.12970E+00	.14343E+00
.17499E+00							
K= 19							
.26853E+00	.26853E+00	.26853E+00	.26853E+00	.26853E+00	.27885E+00	.29160E+00	.30551E+00
.32078E+00	.33782E+00	.35749E+00	.38859E+00	.45902E+00	.56488E+00	.68876E+00	.82054E+00
.90109E+00	.99925E+00	.11773E+01	.14180E+01	.19480E+01	.23728E+01	.29574E+01	.34242E+01
.39755E+01	.46365E+01	.52174E+01	.56835E+01	.60508E+01	.63160E+01	.64466E+01	.63917E+01
.61139E+01	.53291E+01	.45683E+01	.40045E+01	.32747E+01	.28024E+01	.24265E+01	.20630E+01
.18391E+01	.16350E+01	.15383E+01	.14481E+01	.13520E+01	.13338E+01	.13048E+01	.12592E+01
.12250E+01	.11658E+01	.10929E+01	.10087E+01	.91389E+00	.82428E+00	.73062E+00	.64494E+00
.56775E+00	.51166E+00	.46022E+00	.42264E+00	.39277E+00	.35962E+00	.32438E+00	.28774E+00
.25035E+00	.21448E+00	.18301E+00	.15381E+00	.13315E+00	.11788E+00	.11204E+00	.11153E+00
.13725E+00							
K= 20							
.29459E+00	.29459E+00	.29459E+00	.29459E+00	.29459E+00	.30564E+00	.31929E+00	.33417E+00
.35047E+00	.36862E+00	.38943E+00	.42190E+00	.49874E+00	.61295E+00	.74885E+00	.89410E+00
.97601E+00	.10741E+01	.12534E+01	.15219E+01	.20920E+01	.25276E+01	.31372E+01	.37293E+01
.43918E+01	.51741E+01	.58380E+01	.63437E+01	.67014E+01	.69099E+01	.69426E+01	.67426E+01
.62749E+01	.52651E+01	.45025E+01	.40603E+01	.33240E+01	.29523E+01	.26090E+01	.22474E+01
.19994E+01	.17708E+01	.16927E+01	.16238E+01	.15438E+01	.15554E+01	.15641E+01	.15335E+01
.15113E+01	.14620E+01	.13900E+01	.12985E+01	.11718E+01	.10483E+01	.91961E+00	.79382E+00
.67672E+00	.59685E+00	.51090E+00	.45438E+00	.41538E+00	.37646E+00	.33797E+00	.29988E+00
.26230E+00	.22737E+00	.19763E+00	.17085E+00	.15171E+00	.13490E+00	.12064E+00	.10530E+00
.10966E+00							
K= 21							
.35197E+00	.35197E+00	.35197E+00	.35197E+00	.35197E+00	.36458E+00	.38013E+00	.39705E+00
.41555E+00	.43606E+00	.45929E+00	.49463E+00	.58546E+00	.71756E+00	.88003E+00	.10549E+01
.11399E+01	.12393E+01	.14239E+01	.17693E+01	.24482E+01	.29363E+01	.36292E+01	.45018E+01
.54149E+01	.64537E+01	.72667E+01	.78240E+01	.81400E+01	.82267E+01	.80637E+01	.76007E+01
.67656E+01	.55126E+01	.49226E+01	.46789E+01	.37648E+01	.35723E+01	.31011E+01	.27161E+01
.24000E+01	.21531E+01	.21030E+01	.20443E+01	.20097E+01	.20867E+01	.21338E+01	.21636E+01
.22036E+01	.21625E+01	.20841E+01	.19755E+01	.18242E+01	.16683E+01	.14518E+01	.12206E+01
.98514E+00	.81139E+00	.66003E+00	.57129E+00	.50698E+00	.45011E+00	.40050E+00	.35295E+00
.30812E+00	.26806E+00	.23612E+00	.21106E+00	.19513E+00	.18095E+00	.16036E+00	.13130E+00
.89899E-01							
K= 22							
.45220E+00	.45220E+00	.45220E+00	.45220E+00	.45220E+00	.46739E+00	.48609E+00	.50637E+00
.52850E+00	.55289E+00	.58012E+00	.62010E+00	.73504E+00	.89722E+00	.11060E+01	.13317E+01
.14213E+01	.15240E+01	.17178E+01	.22155E+01	.30862E+01	.36578E+01	.45097E+01	.59505E+01
.73446E+01	.88348E+01	.98504E+01	.10431E+02	.10621E+02	.10462E+02	.99163E+01	.90208E+01
.75493E+01	.62826E+01	.60416E+01	.60052E+01	.46045E+01	.46794E+01	.39634E+01	.34882E+01
.30737E+01	.28701E+01	.28435E+01	.27638E+01	.28689E+01	.30934E+01	.31419E+01	.33435E+01
.35875E+01	.35250E+01	.34080E+01	.32482E+01	.31268E+01	.30088E+01	.26125E+01	.21509E+01
.16748E+01	.13319E+01	.10406E+01	.84599E+00	.71757E+00	.61664E+00	.53245E+00	.46229E+00
.40049E+00	.34489E+00	.30487E+00	.28129E+00	.26991E+00	.26144E+00	.23567E+00	.19317E+00
.90185E-01							
K= 23							
.61546E+00	.61546E+00	.61546E+00	.61546E+00	.61546E+00	.63457E+00	.65802E+00	.68339E+00
.71096E+00	.74120E+00	.77446E+00	.82131E+00	.97473E+00	.11836E+01	.14673E+01	.17739E+01
.18694E+01	.19777E+01	.21855E+01	.29546E+01	.41201E+01	.48033E+01	.59391E+01	.84460E+01
.10704E+02	.12918E+02	.14139E+02	.14641E+02	.14564E+02	.13986E+02	.12711E+02	.11181E+02
.87582E+01	.79232E+01	.80041E+01	.82384E+01	.60639E+01	.63085E+01	.54139E+01	.47500E+01
.41812E+01	.40761E+01	.40860E+01	.39211E+01	.43013E+01	.48375E+01	.48156E+01	.54100E+01

.62039E+01	.60439E+01	.58167E+01	.55388E+01	.56653E+01	.59400E+01	.51696E+01	.41761E+01
.31617E+01	.24520E+01	.18529E+01	.14573E+01	.11661E+01	.93736E+00	.77716E+00	.66525E+00
.56882E+00	.48356E+00	.41998E+00	.39702E+00	.39642E+00	.39834E+00	.36309E+00	.29099E+00
.10923E+00							
K= 24							
.87463E+00	.87463E+00	.87463E+00	.87463E+00	.87463E+00	.69942E+00	.92976E+00	.96248E+00
.99792E+00	.10366E+01	.10785E+01	.11352E+01	.13480E+01	.16281E+01	.20285E+01	.24594E+01
.25623E+01	.26792E+01	.29077E+01	.41332E+01	.57249E+01	.65598E+01	.81891E+01	.12560E+02
.16322E+02	.19609E+02	.20918E+02	.21153E+02	.20642E+02	.19445E+02	.16817E+02	.14433E+02
.10696E+02	.10826E+02	.11371E+02	.11760E+02	.84728E+01	.89447E+01	.78664E+01	.68388E+01
.59873E+01	.60482E+01	.61208E+01	.57894E+01	.66518E+01	.77731E+01	.75604E+01	.89290E+01
.10979E+02	.10548E+02	.10062E+02	.95391E+01	.10449E+02	.12284E+02	.10751E+02	.85066E+01
.62705E+01	.47525E+01	.34495E+01	.25963E+01	.19856E+01	.15283E+01	.12199E+01	.10158E+01
.86533E+00	.72886E+00	.61229E+00	.59456E+00	.61782E+00	.63698E+00	.58280E+00	.44524E+00
.14964E+00							
K= 25							
.12819E+01	.12819E+01	.12819E+01	.12819E+01	.12819E+01	.13147E+01	.13548E+01	.13979E+01
.14444E+01	.14949E+01	.15490E+01	.16192E+01	.19225E+01	.23091E+01	.28891E+01	.35088E+01
.36207E+01	.37500E+01	.40091E+01	.59708E+01	.81690E+01	.92260E+01	.11684E+02	.19147E+02
.25375E+02	.30247E+02	.31300E+02	.31029E+02	.29920E+02	.27895E+02	.22844E+02	.19336E+02
.13794E+02	.15471E+02	.16457E+02	.17220E+02	.12306E+02	.13206E+02	.11846E+02	.10213E+02
.89020E+01	.92432E+01	.94242E+01	.88108E+01	.10483E+02	.12630E+02	.12035E+02	.14801E+02
.19387E+02	.18346E+02	.17334E+02	.16345E+02	.19113E+02	.25614E+02	.22586E+02	.17449E+02
.12512E+02	.92676E+01	.64392E+01	.46276E+01	.33869E+01	.25103E+01	.19477E+01	.15976E+01
.13654E+01	.11409E+01	.93748E+00	.93175E+00	.99805E+00	.10466E+01	.95926E+00	.70544E+00
.22.05E+00							
K= 26							
.19191E+01	.19191E+01	.19191E+01	.19191E+01	.19191E+01	.19632E+01	.20168E+01	.20742E+01
.21360E+01	.22027E+01	.22736E+01	.23621E+01	.28022E+01	.33482E+01	.42016E+01	.51062E+01
.52289E+01	.53753E+01	.56794E+01	.88021E+01	.11858E+02	.13271E+02	.17059E+02	.29508E+02
.39478E+02	.46431E+02	.46989E+02	.45902E+02	.44031E+02	.40976E+02	.31817E+02	.26751E+02
.18649E+02	.22609E+02	.24308E+02	.25670E+02	.18286E+02	.19958E+02	.18205E+02	.15614E+02
.13586E+02	.14402E+02	.14770E+02	.13700E+02	.16709E+02	.20585E+02	.19311E+02	.24471E+02
.33737E+02	.31501E+02	.29518E+02	.27709E+02	.34231E+02	.52318E+02	.46521E+02	.35015E+02
.24425E+02	.17700E+02	.11799E+02	.81379E+01	.57453E+01	.41397E+01	.31517E+01	.25645E+01
.22038E+01	.18335E+01	.14800E+01	.15053E+01	.16467E+01	.17452E+01	.15994E+01	.11443E+01
.34194E+00							
K= 27							
.29147E+01	.29147E+01	.29147E+01	.29147E+01	.29147E+01	.29740E+01	.30460E+01	.31229E+01
.32052E+01	.32939E+01	.33872E+01	.35002E+01	.41461E+01	.49302E+01	.61980E+01	.75317E+01
.76674E+01	.78360E+01	.82056E+01	.13131E+02	.17412E+02	.19404E+02	.25243E+02	.45541E+02
.61618E+02	.70469E+02	.70328E+02	.68264E+02	.65413E+02	.61142E+02	.45342E+02	.37971E+02
.26129E+02	.33453E+02	.36414E+02	.38693E+02	.27559E+02	.30572E+02	.28306E+02	.24234E+02
.21099E+02	.22721E+02	.23410E+02	.21612E+02	.26816E+02	.33547E+02	.31127E+02	.40277E+02
.57684E+02	.53309E+02	.49652E+02	.46471E+02	.59878E+02	.10292E+03	.92270E+02	.67697E+02
.46063E+02	.32755E+02	.21088E+02	.14084E+02	.96838E+01	.68451E+01	.51514E+01	.41759E+01
.36086E+01	.29984E+01	.24189E+01	.24793E+01	.27509E+01	.29335E+01	.26848E+01	.18817E+01
.54395E+00							
K= 28							
.44691E+01	.44691E+01	.44691E+01	.44691E+01	.44691E+01	.45487E+01	.46450E+01	.47476E+01
.48572E+01	.49746E+01	.50973E+01	.52421E+01	.61967E+01	.73368E+01	.92290E+01	.11211E+02
.11361E+02	.11558E+02	.12022E+02	.19692E+02	.25803E+02	.28667E+02	.37602E+02	.70099E+02
.96008E+02	.10707E+03	.10530E+03	.10189E+03	.97688E+02	.92008E+02	.65749E+02	.54822E+02
.37506E+02	.49904E+02	.54974E+02	.58720E+02	.41903E+02	.47207E+02	.44310E+02	.37970E+02
.33142E+02	.36129E+02	.37368E+02	.34419E+02	.43215E+02	.54615E+02	.50306E+02	.66014E+02
.97106E+02	.89104E+02	.82674E+02	.77264E+02	.10263E+03	.19394E+03	.17517E+03	.12571E+03
.83842E+02	.58762E+02	.36847E+02	.24045E+02	.16239E+02	.11340E+02	.84778E+01	.68645E+01
.59617E+01	.49578E+01	.39917E+01	.41326E+01	.46290E+01	.49532E+01	.45229E+01	.31188E+01
.88012E+00							
K= 29							
.68950E+01	.68950E+01	.68950E+01	.68950E+01	.68950E+01	.70009E+01	.71286E+01	.72642E+01
.74085E+01	.75626E+01	.77225E+01	.79072E+01	.93246E+01	.10997E+02	.13829E+02	.16789E+02
.16954E+02	.17183E+02	.17783E+02	.29631E+02	.38478E+02	.42665E+02	.56263E+02	.10749E+03
.14877E+03	.16260E+03	.15788E+03	.15246E+03	.14629E+03	.13880E+03	.96388E+02	.80108E+02
.54718E+02	.74850E+02	.83354E+02	.89489E+02	.64070E+02	.73245E+02	.69638E+02	.59850E+02

.52441E+02	.57739E+02	.59912E+02	.55146E+02	.69816E+02	.88821E+02	.81433E+02	.[illegible]E+0[illegible]
.16154E+03	.14756E+03	.13664E+03	.12766E+03	.17321E+03	.35132E+03	.31932E+03	.[illegible]31E+0[illegible]
.14813E+03	.10279E+03	.63269E+02	.40645E+02	.27133E+02	.18808E+02	.14014E+02	.[illegible]52E+[illegible]
.99036E+01	.82537E+01	.66482E+01	.69381E+01	.78227E+01	.83847E+01	.76345E+01	.[illegible]19[illegible]E+01
.14387E+01							
K= 30							
.10681E+02	.10681E+02	.10681E+02	.10681E+02	.10681E+02	.10819E+02	.10985E+02	.11161E+02
.11348E+02	.11547E+02	.11752E+02	.11984E+02	.14095E+02	.16561E+02	.20808E+02	.25240E+02
.25420E+02	.25686E+02	.26478E+02	.44678E+02	.57621E+02	.63826E+02	.84438E+02	.16423E+03
.22915E+03	.24656E+03	.23698E+03	.22853E+03	.21943E+03	.20942E+03	.14243E+03	.11812E+03
.80702E+02	.11267E+03	.12670E+03	.13674E+03	.98306E+02	.11398E+03	.10971E+03	.94692E+02
.83363E+02	.92563E+02	.96321E+02	.88694E+02	.11297E+03	.14433E+03	.13195E+03	.17582E+03
.26648E+03	.24281E+03	.22408E+03	.21005E+03	.28922E+03	.61655E+03	.56336E+03	.39294E+03
.25596E+03	.17652E+03	.10732E+03	.68246E+02	.45228E+02	.31221E+02	.23232E+02	.18842E+02
.16507E+02	.13797E+02	.11134E+02	.11699E+02	.13253E+02	.14214E+02	.12902E+02	.86729E+01
.23664E+01							
K= 31							
.16589E+02	.16589E+02	.16589E+02	.16589E+02	.16589E+02	.16764E+02	.16975E+02	.17197E+02
.17432E+02	.17681E+02	.17936E+02	.18221E+02	.21369E+02	.25022E+02	.31397E+02	.38051E+02
.38235E+02	.38535E+02	.39599E+02	.67457E+02	.86524E+02	.95820E+02	.12698E+03	.25020E+03
.35109E+03	.37332E+03	.35603E+03	.34296E+03	.32945E+03	.31580E+03	.21163E+03	.17529E+03
.11989E+03	.17001E+03	.19287E+03	.20928E+03	.15117E+03	.17770E+03	.17308E+03	.15017E+03
.13291E+03	.14868E+03	.15512E+03	.14299E+03	.18296E+03	.23440E+03	.21391E+03	.28619E+03
.43715E+03	.39786E+03	.36822E+03	.34467E+03	.47950E+03	.10574E+04	.97045E+03	.67217E+03
.43557E+03	.29941E+03	.18059E+03	.11409E+03	.75278E+02	.51850E+02	.38579E+02	.31346E+02
.27568E+02	.23122E+02	.18710E+02	.19776E+02	.22486E+02	.24117E+02	.21816E+02	.14508E+02
.39067E+01							
K= 32							
.25808E+02	.25808E+02	.25808E+02	.25808E+02	.25808E+02	.26021E+02	.26275E+02	.26543E+02
.26826E+02	.27124E+02	.27428E+02	.27760E+02	.32462E+02	.37885E+02	.47461E+02	.57463E+02
.57633E+02	.57952E+02	.59400E+02	.10194E+03	.13016E+03	.14419E+03	.19120E+03	.38035E+03
.53571E+03	.56454E+03	.53525E+03	.51511E+03	.49490E+03	.47585E+03	.31565E+03	.26131E+03
.17898E+03	.25695E+03	.29385E+03	.32065E+03	.23280E+03	.27737E+03	.27332E+03	.23852E+03
.21229E+03	.23911E+03	.25009E+03	.23087E+03	.29648E+03	.38052E+03	.34692E+03	.46540E+03
.71456E+03	.65016E+03	.60218E+03	.56459E+03	.79138E+03	.17850E+04	.16447E+04	.11351E+04
.73386E+03	.50380E+03	.30233E+03	.19023E+03	.12518E+03	.86138E+02	.64132E+02	.52221E+02
.46096E+02	.38805E+02	.31503E+02	.33483E+02	.38185E+02	.40941E+02	.36905E+02	.24292E+02
.64640E+01							
K= 33							
.40194E+02	.40194E+02	.40194E+02	.40194E+02	.40194E+02	.40433E+02	.40717E+02	.41016E+02
.41330E+02	.41660E+02	.41994E+02	.42352E+02	.49376E+02	.57441E+02	.71834E+02	.86882E+02
.86994E+02	.87292E+02	.89279E+02	.15412E+03	.19605E+03	.21734E+03	.28818E+03	.57729E+03
.81493E+03	.85290E+03	.80503E+03	.77409E+03	.74370E+03	.71654E+03	.47202E+03	.39073E+03
.26804E+03	.38876E+03	.44794E+03	.49162E+03	.35883E+03	.43327E+03	.43184E+03	.37918E+03
.33947E+03	.38483E+03	.40346E+03	.37310E+03	.48063E+03	.61759E+03	.56276E+03	.75638E+03
.11653E+04	.10606E+04	.98349E+03	.92382E+03	.13024E+04	.29823E+04	.27577E+04	.19010E+04
.12286E+04	.84342E+03	.50454E+03	.31663E+03	.20803E+03	.14313E+03	.10668E+03	.87067E+02
.77134E+02	.65185E+02	.53107E+02	.56739E+02	.64876E+02	.69519E+02	.62442E+02	.40700E+02
.10710E+02							
K= 34							
.62643E+02	.62643E+02	.62643E+02	.62643E+02	.62643E+02	.62872E+02	.63144E+02	.63428E+02
.63727E+02	.64038E+02	.64350E+02	.64672E+02	.75169E+02	.87172E+02	.10881E+03	.13146E+03
.13144E+03	.13163E+03	.13436E+03	.23312E+03	.29552E+03	.32794E+03	.43459E+03	.87527E+03
.12370E+04	.12877E+04	.12112E+04	.11637E+04	.11178E+04	.10784E+04	.70709E+03	.58548E+03
.40229E+03	.58861E+03	.68308E+03	.75408E+03	.55342E+03	.67711E+03	.68255E+03	.60315E+03
.54323E+03	.61965E+03	.65114E+03	.60330E+03	.77930E+03	.10022E+04	.91300E+03	.12289E+04
.18977E+04	.17284E+04	.16049E+04	.15106E+04	.21395E+04	.49502E+04	.45928E+04	.31670E+04
.20487E+04	.14076E+04	.84034E+03	.52647E+03	.34561E+03	.23784E+03	.17752E+03	.14524E+03
.12913E+03	.10955E+03	.89588E+02	.96201E+02	.11026E+03	.11807E+03	.10567E+03	.68215E+02
.17758E+02							
K= 35							
.97674E+02	.97674E+02	.97674E+02	.97674E+02	.97674E+02	.97809E+02	.97968E+02	.98135E+02
.98308E+02	.98488E+02	.98659E+02	.98812E+02	.11450E+03	.13237E+03	.16491E+03	.19902E+03
.19870E+03	.19862E+03	.20240E+03	.35268E+03	.44570E+03	.49519E+03	.65564E+03	.13261E+04
.18750E+04	.19432E+04	.18227E+04	.17498E+04	.16804E+04	.16224E+04	.10605E+04	.87854E+03

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  .60462E+03  .89162E+03  .10419E+04  .11570E+04  .85383E+03  .10585E+04  .10791E+04  .95978E+03
  .86969E+03  .99804E+03  .10511E+04  .97588E+03  .12638E+04  .16261E+04  .14813E+04  .19959E+04
  .30877E+04  .28146E+04  .26176E+04  .24691E+04  .35108E+04  .81829E+04  .76166E+04  .52593E+04
  .34079E+04  .23446E+04  .13980E+04  .87485E+03  .57405E+03  .39527E+03  .29548E+03  .24235E+03
  .21622E+03  .18418E+03  .15119E+03  .16316E+03  .18742E+03  .20054E+03  .17882E+03  .11436E+03
  .29460E+02
K=   36
  .17355E+03  .17355E+03  .17355E+03  .17355E+03  .17355E+03  .17313E+03  .17263E+03  .17212E+03
  .17159E+03  .17103E+03  .17045E+03  .16976E+03  .19572E+03  .22514E+03  .27957E+03  .33674E+03
  .33553E+03  .33444E+03  .33994E+03  .59617E+03  .74959E+03  .83499E+03  .11039E+04  .22447E+04
  .31670E+04  .32623E+04  .30512E+04  .29262E+04  .28084E+04  .27123E+04  .17693E+04  .14680E+04
  .10128E+04  .15121E+04  .17848E+04  .20014E+04  .14909E+04  .18895E+04  .19624E+04  .17655E+04
  .16173E+04  .18754E+04  .19830E+04  .18481E+04  .24032E+04  .30941E+04  .28193E+04  .38038E+04
  .58953E+04  .53850E+04  .50236E+04  .47579E+04  .68056E+04  .15987E+05  .14968E+05  .10305E+05
  .67637E+04  .46741E+04  .27846E+04  .17401E+04  .11412E+04  .70672E+03  .58903E+03  .48604E+03
  .43643E+03  .37463E+03  .30982E+03  .33748E+03  .38925E+03  .41585E+03  .36825E+03  .23139E+03
  .58451E+02
      8.60000      8.59800      8.59488      8.59002      8.58244      8.57064
      8.55230      8.52383      8.47978      8.41195      8.30824      8.15142
      7.91818      7.57975      7.10579      6.47404      5.68520      4.77678
      3.82322      2.91480      2.12596      1.49421      1.02025       .68182
       .44858       .29176       .18805       .12022       .07617       .04770
       .02936       .01756       .00998       .00512       .00200      0.00000
 J,K,DT,CNBR,       SMU,SMUIMP   58   35    .0000758193  1.0000000000    .0009098316    .0029114610
JT,KT,CNBR1   58   35  .10000E+01
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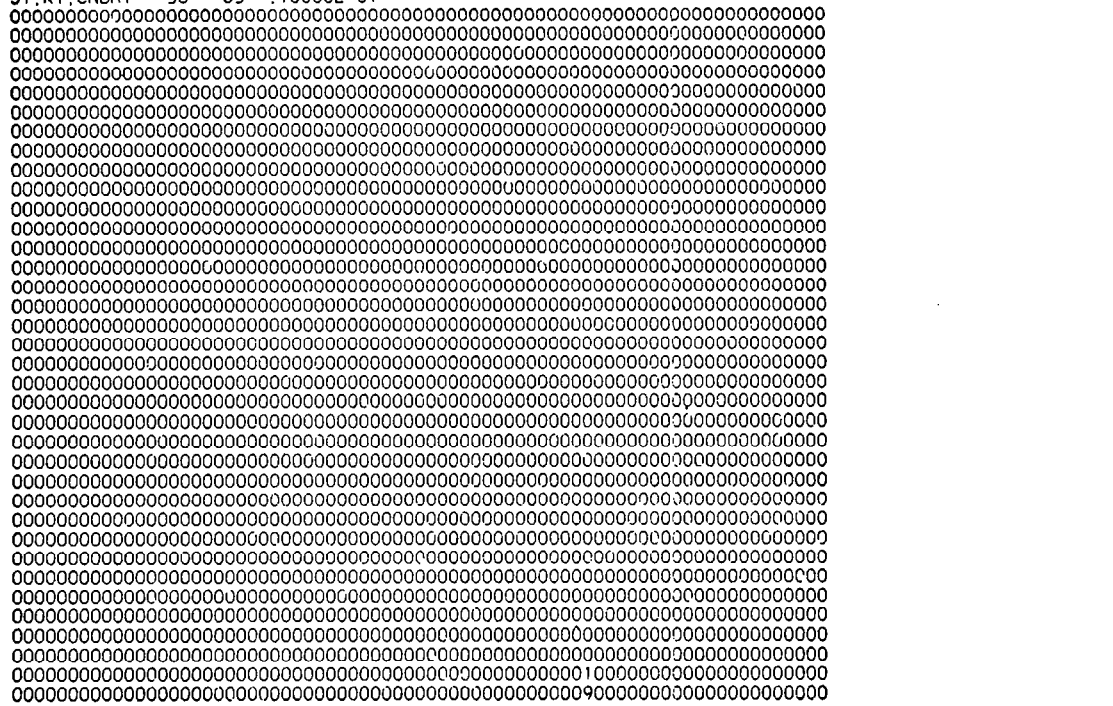


J,X,Y,(Q ,N=1,4), P/PST AT K = 1

1	.90000E+02	.86000E+01	.98089E+00	.34326E+01	0.	.77453E+01	.12770E-01
2	.86000E+02	.86000E+01	.98089E+00	.34326E+01	-.18056E-01	.77453E+01	.12769E-01
3	.82000E+02	.86000E+01	.97882E+00	.34252E+01	-.19951E-01	.77274E+01	.12733E-01
4	.78000E+02	.86000E+01	.97409E+00	.34085E+01	-.24272E-01	.76867E+01	.12651E-01
5	.74000E+02	.86000E+01	.96658E+00	.33822E+01	-.31121E-01	.76229E+01	.12519E-01
6	.70000E+02	.84600E+01	.95656E+00	.33472E+01	-.40261E-01	.75382E+01	.12342E-01
7	.66000E+02	.83000E+01	.94484E+00	.33065E+01	-.50998E-01	.74395E+01	.12133E-01
8	.62000E+02	.81400E+01	.93294E+00	.32655E+01	-.62037E-01	.73402E+01	.11916E-01
9	.58000E+02	.79800E+01	.92302E+00	.32321E+01	-.71508E-01	.72593E+01	.11731E-01
10	.54000E+02	.78200E+01	.91768E+00	.32155E+01	-.77027E-01	.72200E+01	.11626E-01
11	.50000E+02	.76700E+01	.91965E+00	.32253E+01	-.75872E-01	.72461E+01	.11654E-01
12	.46000E+02	.75070E+01	.93129E+00	.32697E+01	-.65305E-01	.73585E+01	.11868E-01
13	.42000E+02	.73480E+01	.95418E+00	.33536E+01	-.43062E-01	.75700E+01	.12304E-01
14	.39000E+02	.72300E+01	.98856E+00	.34768E+01	-.80037E-02	.78808E+01	.12972E-01
15	.36000E+02	.71100E+01	.10332E+01	.36337E+01	.39269E-01	.82761E+01	.13845E-01
16	.34000E+02	.71100E+01	.10855E+01	.38139E+01	.96260E-01	.87288E+01	.14865E-01
17	.32000E+02	.71100E+01	.11417E+01	.40034E+01	.15853E+00	.92019E+01	.15947E-01
18	.30000E+02	.71100E+01	.11971E+01	.41866E+01	.22057E+00	.96560E+01	.16996E-01
19	.28000E+02	.71100E+01	.12464E+01	.43467E+01	.27595E+00	.10049E+02	.17913E-01
20	.26000E+02	.71100E+01	.12843E+01	.44672E+01	.31799E+00	.10341E+02	.18594E-01
21	.25000E+02	.71100E+01	.13055E+01	.45318E+01	.34030E+00	.10490E+02	.18942E-01
22	.24000E+02	.71100E+01	.13102E+01	.45433E+01	.34319E+00	.10506E+02	.18966E-01
23	.23750E+02	.71100E+01	.13025E+01	.45171E+01	.33259E+00	.10430E+02	.18762E-01
24	.23500E+02	.71100E+01	.12938E+01	.44898E+01	.32175E+00	.10359E+02	.18556E-01
25	.23250E+02	.71080E+01	.12886E+01	.44749E+01	.31570E+00	.10320E+02	.18436E-01
26	.23000E+02	.71050E+01	.12870E+01	.44706E+01	.31363E+00	.10308E+02	.18393E-01
27	.22750E+02	.71020E+01	.12873E+01	.44715E+01	.31395E+00	.10309E+02	.18391E-01
28	.22500E+02	.71000E+01	.12882E+01	.44734E+01	.31449E+00	.10312E+02	.18403E-01
29	.22250E+02	.70900E+01	.12892E+01	.44754E+01	.31492E+00	.10315E+02	.18416E-01
30	.22000E+02	.70780E+01	.12900E+01	.44780E+01	.31522E+00	.10321E+02	.18427E-01
31	.21750E+02	.70700E+01	.12906E+01	.44802E+01	.31520E+00	.10325E+02	.18431E-01
32	.21500E+02	.70470E+01	.12912E+01	.44829E+01	.31495E+00	.10331E+02	.18432E-01
33	.21250E+02	.70280E+01	.12918E+01	.44864E+01	.31450E+00	.10339E+02	.18430E-01
34	.21000E+02	.70100E+01	.12921E+01	.44886E+01	.31351E+00	.10343E+02	.18422E-01
35	.20750E+02	.69870E+01	.12921E+01	.44895E+01	.31198E+00	.10345E+02	.18410E-01
36	.20500E+02	.69650E+01	.12916E+01	.44891E+01	.30994E+00	.10344E+02	.18393E-01
37	.20250E+02	.69400E+01	.12907E+01	.44872E+01	.30739E+00	.10339E+02	.18373E-01
38	.20000E+02	.69130E+01	.12895E+01	.44838E+01	.30440E+00	.10330E+02	.18347E-01
39	.19750E+02	.68850E+01	.12877E+01	.44783E+01	.30093E+00	.10317E+02	.18315E-01
40	.19500E+02	.68600E+01	.12850E+01	.44695E+01	.29671E+00	.10295E+02	.18270E-01
41	.19250E+02	.68350E+01	.12809E+01	.44552E+01	.29123E+00	.10260E+02	.18201E-01
42	.19000E+02	.68100E+01	.12743E+01	.44323E+01	.28369E+00	.10204E+02	.18093E-01
43	.18500E+02	.67570E+01	.12639E+01	.43954E+01	.27304E+00	.10113E+02	.17922E-01
44	.18000E+02	.67050E+01	.12501E+01	.43453E+01	.26006E+00	.99897E+01	.17696E-01
45	.17500E+02	.66550E+01	.12343E+01	.42876E+01	.24639E+00	.98469E+01	.17440E-01
46	.17000E+02	.66200E+01	.12184E+01	.42289E+01	.23321E+00	.97006E+01	.17177E-01
47	.16500E+02	.65500E+01	.12039E+01	.41745E+01	.22162E+00	.95642E+01	.16935E-01
48	.16000E+02	.64950E+01	.11929E+01	.41322E+01	.21278E+00	.94574E+01	.16752E-01
49	.15800E+02	.64750E+01	.11874E+01	.41100E+01	.20753E+00	.94004E+01	.16662E-01
50	.15780E+02	.64730E+01	.11880E+01	.41113E+01	.20725E+00	.94031E+01	.16676E-01
51	.15760E+02	.64710E+01	.11896E+01	.41158E+01	.20873E+00	.94137E+01	.16706E-01
52	.15750E+02	.64700E+01	.11853E+01	.40976E+01	.20412E+00	.93643E+01	.16623E-01
53	.15760E+02	.64730E+01	.11830E+01	.40929E+01	.20060E+00	.93546E+01	.16572E-01
54	.15780E+02	.64800E+01	.11819E+01	.40903E+01	.19952E+00	.93490E+01	.16553E-01
55	.15800E+02	.64870E+01	.11807E+01	.40868E+01	.19834E+00	.93408E+01	.16527E-01
56	.16000E+02	.65570E+01	.11777E+01	.40768E+01	.19459E+00	.93210E+01	.16458E-01
57	.16250E+02	.66400E+01	.11734E+01	.40674E+01	.18930E+00	.92928E+01	.16360E-01
58	.16500E+02	.67220E+01	.11673E+01	.40504E+01	.18206E+00	.92515E+01	.16225E-01
59	.16750E+02	.67910E+01	.11579E+01	.40240E+01	.17149E+00	.91877E+01	.16023E-01
60	.17000E+02	.68500E+01	.11442E+01	.39845E+01	.15611E+00	.90927E+01	.15746E-01
61	.17500E+02	.69800E+01	.11255E+01	.39295E+01	.13553E+00	.89614E+01	.15374E-01
62	.18000E+02	.71000E+01	.11033E+01	.38625E+01	.11147E+00	.88027E+01	.14941E-01
63	.18500E+02	.72100E+01	.10788E+01	.37880E+01	.85366E-01	.86253E+01	.14476E-01
64	.19000E+02	.73200E+01	.10539E+01	.37101E+01	.58626E-01	.84402E+01	.14011E-01
65	.19500E+02	.74000E+01	.10314E+01	.36377E+01	.34469E-01	.82671E+01	.13597E-01

66	.20000E+02	.75100E+01	.10135E+01	.35773E+01	.14299E-01	.81210E+01	.13271E-01
67	.21000E+02	.76900E+01	.10020E+01	.35354E+01	.38063E-03	.80170E+01	.13067E-01
68	.22000E+02	.78000E+01	.99735E+00	.35148E+01	-.62611E-02	.79626E+01	.12991E-01
69	.23000E+02	.79300E+01	.99742E+00	.35058E+01	-.74465E-02	.79430E+01	.13004E-01
70	.24000E+02	.80200E+01	.99937E+00	.35093E+01	-.58437E-02	.79390E+01	.13052E-01
71	.25000E+02	.81400E+01	.10012E+01	.35103E+01	-.37162E-02	.79376E+01	.13094E-01
72	.27000E+02	.83100E+01	.10019E+01	.35102E+01	-.24675E-02	.79350E+01	.13114E-01
73	.29000E+02	.84200E+01	.10019E+01	.35102E+01	-.24675E-02	.79350E+01	.13114E-01

FREE STREAM QUANTITIES GIVEN TO OR COMPUTED BY OUTPUT SUBROUTINE HARVIO.

FREE STREAM PRESSURE (PINF) = .71429E+00
FREE STREAM DENSITY (RINF) = .10000E+01
MAGNITUDE OF FREE STREAM VELOCITY (QINF) = .35000E+01
FREE STREAM TOTAL ENERGY (ETINF) = .79107E+01
FREE STREAM ENTROPY (SINF) = .71429E+00
FREE STREAM TOTAL ENTHALPY (HTINF) = .86250E+01
FREE STREAM INTERNAL ENERGY (EIINF) = .17857E+01
FREE STREAM MACH NUMBER (AMINF) = .35000E+01

ITER= 0 TIME= 0.0000 DT= .0001
MAX. TOTAL ENTHALPY ERR.= 46.85% AT FIRST INDEX= 52, SECOND INDEX= 36, R.M.S. OF TOT. ENTH. ERR. OVER ENTIRE FIELD= 4.92%.
LFAC=50JAXI= 0
MDOT= .14381E+01TIME STEP 1JINDEX= 2
MDOT= .12788E+01TIME STEP 1JINDEX= 7
MDOT= .97811E+00TIME STEP 1JINDEX= 12
MDOT= .87794E+00TIME STEP 1JINDEX= 17
MDOT= .93904E+00TIME STEP 1JINDEX= 22
MDOT= .10173E+01TIME STEP 1JINDEX= 27
RESIDUAL= .65550E-01
.7380174E-03 .2565058E-02 .1773713E-03 .5910542E-02 .2479059E-02 .6555031E-01

3333333222223344566777777777777777777777776666666666665555554444333333333
3333333222223344566777777777777777777777776666666666665555554444333333333
3333333222223344566777777777777777777777776666666666665555554444333333333
3333333222223344566777777777777777777777776666666666655555555444433333333

K= 1

.17355E+03	.17355E+03	.17355E+03	.17355E+03	.17355E+03	.17313E+03	.17263E+03	.17212E+03
.17159E+03	.17103E+03	.17045E+03	.16976E+03	.19573E+03	.22514E+03	.28020E+03	.33753E+03
.33657E+03	.33745E+03	.35363E+03	.67898E+03	.88777E+03	.22532E+04	.30112E+04	.27922E+04
.27186E+04	.26848E+04	.26738E+04	.26765E+04	.26923E+04	.27102E+04	.27400E+04	.27896E+04
.28227E+04	.28815E+04	.29553E+04	.30262E+04	.31172E+04	.32482E+04	.33886E+04	.35387E+04
.39086E+04	.39882E+04	.27518E+04	.26489E+04	.26093E+04	.24941E+04	.25785E+04	.20887E+04
.78642E+04	.34719E+05	.45971E+05	.73614E+06	.45686E+05	.36781E+05	.12442E+05	.36459E+04
.28970E+04	.28900E+04	.29561E+04	.22470E+04	.14909E+04	.14685E+04	.14733E+04	.14921E+04
.15400E+04	.12348E+04	.79763E+03	.77962E+03	.78257E+03	.79864E+03	.64580E+03	.39362E+03
.37307E+03							

K= 2

.97674E+02	.97674E+02	.97674E+02	.97674E+02	.97674E+02	.97809E+02	.97968E+02	.98135E+02
.98308E+02	.98488E+02	.98660E+02	.98811E+02	.11450E+03	.13237E+03	.16528E+03	.19948E+03
.19932E+03	.20042E+03	.21053E+03	.40155E+03	.52766E+03	.13297E+04	.17858E+04	.16534E+04
.16132E+04	.15994E+04	.15966E+04	.16003E+04	.16111E+04	.16227E+04	.16405E+04	.16675E+04
.16831E+04	.17014E+04	.17269E+04	.17508E+04	.17865E+04	.18209E+04	.18641E+04	.19243E+04
.21004E+04	.21157E+04	.14578E+04	.13981E+04	.13716E+04	.13109E+04	.13542E+04	.11036E+04
.40700E+04	.17555E+05	.23973E+05	.12982E+06	.22085E+05	.17913E+05	.41553E+04	.18533E+04
.14662E+04	.14547E+04	.14860E+04	.11301E+04	.75148E+03	.73850E+03	.73820E+03	.74380E+03
.76221E+03	.60620E+03	.38924E+03	.37689E+03	.37678E+03	.38503E+03	.31341E+03	.19464E+03
.18802E+03							

K= 3

.62643E+02	.62643E+02	.62643E+02	.62643E+02	.62643E+02	.62872E+02	.63144E+02	.63428E+02
.63727E+02	.64038E+02	.64350E+02	.64671E+02	.75171E+02	.87171E+02	.10906E+03	.13177E+03
.13185E+03	.13282E+03	.13976E+03	.26539E+03	.34985E+03	.87642E+03	.11789E+04	.10[illegible]4E+04
.10677E+04	.10613E+04	.10610E+04	.10644E+04	.10722E+04	.10804E+04	.10923E+04	.11091E+04
.11178E+04	.11231E+04	.11326E+04	.11414E+04	.11579E+04	.11648E+04	.11793E+04	.12090E+04
.13090E+04	.13091E+04	.90300E+03	.86412E+03	.84588E+03	.80846E+03	.83633E+03	.68600E+03
.24837E+04	.10113E+05	.13629E+05	.39077E+05	.12135E+05	.10066E+05	.36381E+04	.11259E+04
.88692E+03	.87585E+03	.89245E+03	.67984E+03	.45326E+03	.44460E+03	.44341E+03	.44543E+03
.45437E+03	.36009E+03	.23067E+03	.22220E+03	.22162E+03	.22659E+03	.18509E+03	.11615E+03
.11332E+03							

K= 4

.40194E+02	.40194E+02	.40194E+02	.40194E+02	.40194E+02	.40433E+02	.40717E+02	.41016E+02
.41330E+02	.41660E+02	.41994E+02	.42352E+02	.49378E+02	.57441E+02	.71996E+02	.87085E+02
.87267E+02	.88085E+02	.92853E+02	.17542E+03	.23207E+03	.57668E+03	.77698E+03	.72154E+03
.70662E+03	.70430E+03	.70532E+03	.70822E+03	.71387E+03	.71969E+03	.72757E+03	.73803E+03
.74273E+03	.74170E+03	.74318E+03	.74436E+03	.75083E+03	.74531E+03	.74626E+03	.75971E+03
.81498E+03	.80863E+03	.55949E+03	.53420E+03	.52176E+03	.49875E+03	.51718E+03	.42876E+03
.15069E+04	.56362E+04	.75073E+04	.13396E+05	.63873E+04	.54364E+04	.21166E+04	.68553E+03
.53731E+03	.52727E+03	.53504E+03	.40866E+03	.27366E+03	.26778E+03	.26637E+03	.26669E+03
.27060E+03	.21377E+03	.13678E+03	.13103E+03	.13036E+03	.13323E+03	.10927E+03	.69343E+02
.68332E+02							

K= 5

.25808E+02	.25808E+02	.25808E+02	.25808E+02	.25808E+02	.26021E+02	.26275E+02	.26543E+02
.26826E+02	.27124E+02	.27428E+02	.27760E+02	.32462E+02	.37885E+02	.47568E+02	.57598E+02
.57815E+02	.58481E+02	.61770E+02	.11599E+03	.15407E+03	.37852E+03	.51087E+03	.47643E+03
.46770E+03	.46752E+03	.46904E+03	.47146E+03	.47555E+03	.47969E+03	.48496E+03	.49143E+03
.49385E+03	.49014E+03	.48795E+03	.48575E+03	.48712E+03	.47713E+03	.47244E+03	.47754E+03
.50671E+03	.49817E+03	.34678E+03	.33036E+03	.32194E+03	.30786E+03	.32047E+03	.27029E+03
.90469E+03	.29385E+04	.37806E+04	.49662E+04	.31817E+04	.27831E+04	.12022E+04	.41867E+03
.32628E+03	.31738E+03	.31986E+03	.24531E+03	.16548E+03	.16139E+03	.16003E+03	.15962E+03
.16091E+03	.12678E+03	.81168E+02	.77306E+02	.76690E+02	.78309E+02	.64471E+02	.41432E+02
.41231E+02							

K= 6

.16589E+02	.16589E+02	.16589E+02	.16589E+02	.16589E+02	.16764E+02	.16975E+02	.17197E+02
.17432E+02	.17681E+02	.17936E+02	.18220E+02	.21370E+02	.25022E+02	.31466E+02	.38140E+02
.38357E+02	.38890E+02	.41171E+02	.76719E+02	.10240E+03	.24758E+03	.33476E+03	.31440E+03
.30958E+03	.31046E+03	.31210E+03	.31408E+03	.31705E+03	.32003E+03	.32358E+03	.32754E+03
.32871E+03	.32423E+03	.32067E+03	.31729E+03	.31631E+03	.30567E+03	.29929E+03	.30030E+03

.31439E+03	.30567E+03	.21505E+03	.20442E+03	.19874E+03	.19021E+03	.19921E+03	.17260E+03
.51991E+03	.14619E+04	.17855E+04	.19495E+04	.15041E+04	.13272E+04	.65916E+03	.25662E+03
.19883E+03	.19098E+03	.19039E+03	.14693E+03	.10032E+03	.97369E+02	.96173E+02	.95489E+02
.95442E+02	.75064E+02	.48237E+02	.45641E+02	.45123E+02	.45981E+02	.38004E+02	.24789E+02
.24906E+02							

K= 7

.10681E+02	.10681E+02	.10681E+02	.10681E+02	.10681E+02	.10819E+02	.10985E+02	.11161E+02
.11348E+02	.11547E+02	.11752E+02	.11984E+02	.14095E+02	.16562E+02	.20853E+02	.25300E+02
.25502E+02	.25925E+02	.27520E+02	.50776E+02	.68170E+02	.16113E+03	.21834E+03	.20729E+03
.20494E+03	.20628E+03	.20785E+03	.20947E+03	.21165E+03	.21382E+03	.21623E+03	.21864E+03
.21914E+03	.21481E+03	.21104E+03	.20754E+03	.20566E+03	.19605E+03	.18979E+03	.18896E+03
.19450E+03	.19644E+03	.13348E+03	.12660E+03	.12278E+03	.11772E+03	.12441E+03	.11186E+03
.30317E+03	.70799E+03	.80180E+03	.79825E+03	.68234E+03	.60807E+03	.33653E+03	.15724E+03
.12172E+03	.11485E+03	.11258E+03	.87696E+02	.61065E+02	.58847E+02	.57817E+02	.57071E+02
.56384E+02	.44328E+02	.28733E+02	.26978E+02	.26556E+02	.26955E+02	.22367E+02	.14864E+02
.15072E+02							

K= 8

.68950E+01	.68950E+01	.68950E+01	.68950E+01	.68950E+01	.70009E+01	.71286E+01	.72642E+01
.74085E+01	.75626E+01	.77225E+01	.79071E+01	.93248E+01	.10997E+02	.13858E+02	.16827E+02
.17010E+02	.17346E+02	.18474E+02	.33638E+02	.45498E+02	.10417E+03	.14152E+03	.13650E+03
.13568E+03	.13716E+03	.13860E+03	.13993E+03	.14155E+03	.14316E+03	.14481E+03	.14627E+03
.14643E+03	.14264E+03	.13920E+03	.13604E+03	.13398E+03	.12595E+03	.12051E+03	.11900E+03
.11989E+03	.11279E+03	.82944E+02	.78516E+02	.75958E+02	.73089E+02	.78117E+02	.74723E+02
.18389E+03	.33803E+03	.35294E+03	.33780E+03	.30422E+03	.27503E+03	.16825E+03	.95549E+02
.74803E+02	.68969E+02	.65960E+02	.52046E+02	.37389E+02	.35661E+02	.34778E+02	.34061E+02
.33109E+02	.26067E+02	.17178E+02	.15977E+02	.15636E+02	.15761E+02	.13130E+02	.89463E+01
.91492E+01							

K= 9

.44691E+01	.44691E+01	.44691E+01	.44691E+01	.44691E+01	.45487E+01	.46450E+01	.47476E+01
.48572E+01	.49746E+01	.50973E+01	.52420E+01	.61969E+01	.73370E+01	.92481E+01	.11237E+02
.11400E+02	.11670E+02	.12481E+02	.22317E+02	.30479E+02	.66762E+02	.91045E+02	.89720E+02
.89833E+02	.91318E+02	.92604E+02	.93700E+02	.94933E+02	.96147E+02	.97308E+02	.98175E+02
.98186E+02	.95045E+02	.92103E+02	.89457E+02	.87519E+02	.81093E+02	.76653E+02	.75124E+02
.74135E+02	.67519E+02	.51592E+02	.48795E+02	.47055E+02	.45702E+02	.49340E+02	.52361E+02
.11350E+03	.16016E+03	.15651E+03	.14769E+03	.13630E+03	.12500E+03	.86073E+02	.58008E+02
.45905E+02	.41256E+02	.38245E+02	.30452E+02	.23063E+02	.21694E+02	.20937E+02	.20282E+02
.19277E+02	.15227E+02	.10327E+02	.94907E+01	.92117E+01	.91809E+01	.76771E+01	.54164E+01
.55813E+01							

K= 10

.29147E+01	.29147E+01	.29147E+01	.29147E+01	.29147E+01	.29740E+01	.30460E+01	.31229E+01
.32052E+01	.32939E+01	.33872E+01	.35001E+01	.41460E+01	.49303E+01	.62093E+01	.75497E+01
.76949E+01	.79147E+01	.85094E+01	.14832E+02	.20522E+02	.42366E+02	.58420E+02	.58822E+02
.59468E+02	.60895E+02	.62044E+02	.62969E+02	.63930E+02	.64868E+02	.65704E+02	.66221E+02
.66170E+02	.63652E+02	.61240E+02	.59101E+02	.57409E+02	.52392E+02	.48810E+02	.47174E+02
.45364E+02	.39962E+02	.32132E+02	.30444E+02	.29292E+02	.28871E+02	.31371E+02	.39422E+02
.67632E+02	.75671E+02	.71088E+02	.66758E+02	.62361E+02	.58356E+02	.45051E+02	.34562E+02
.27872E+02	.24411E+02	.22002E+02	.17864E+02	.14321E+02	.13262E+02	.12618E+02	.12038E+02
.11121E+02	.87634E+01	.62526E+01	.56637E+01	.54330E+01	.53264E+01	.44539E+01	.33111E+01
.34023E+01							

K= 11

.19191E+01	.19191E+01	.19191E+01	.19191E+01	.19191E+01	.19632E+01	.20168E+01	.20742E+01
.21360E+01	.22027E+01	.22736E+01	.23621E+01	.28022E+01	.33483E+01	.42091E+01	.51185E+01
.52487E+01	.54313E+01	.58813E+01	.99010E+01	.13928E+02	.26547E+02	.36895E+02	.38206E+02
.39311E+02	.40695E+02	.41741E+02	.42543E+02	.43321E+02	.44065E+02	.44687E+02	.45008E+02
.44937E+02	.42953E+02	.41023E+02	.39322E+02	.37885E+02	.34007E+02	.31133E+02	.29434E+02
.27355E+02	.23728E+02	.20127E+02	.19116E+02	.18429E+02	.18633E+02	.20425E+02	.31135E+02
.37063E+02	.36075E+02	.33386E+02	.31307E+02	.29411E+02	.27907E+02	.23633E+02	.19836E+02
.16464E+02	.14246E+02	.12626E+02	.10592E+02	.89278E+01	.81383E+01	.75986E+01	.70935E+01
.63637E+01	.50470E+01	.38168E+01	.33970E+01	.32034E+01	.30697E+01	.25785E+01	.20542E+01
.21385E+01							

K= 12

.12819E+01	.12819E+01	.12819E+01	.12819E+01	.12819E+01	.13147E+01	.13548E+01	.13979E+01
.14444E+01	.14949E+01	.15490E+01	.16192E+01	.19226E+01	.23093E+01	.28940E+01	.35172E+01
.36352E+01	.37906E+01	.41442E+01	.66714E+01	.95576E+01	.16671E+02	.23043E+02	.24681E+02
.25971E+02	.27292E+02	.28257E+02	.28975E+02	.29630E+02	.30239E+02	.30719E+02	.30936E+02

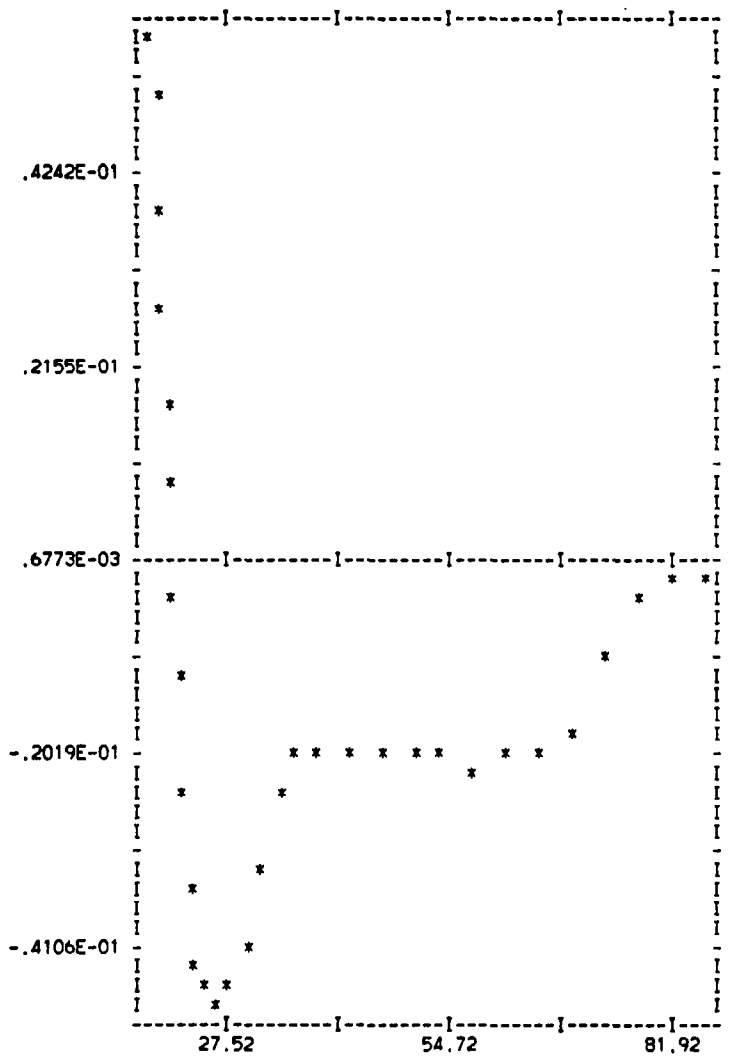
.30863E+02	.29313E+02	.27781E+02	.26427E+02	.25199E+02	.22180E+02	.19814E+02	.18215E+02
.16441E+02	.14301E+02	.12750E+02	.12170E+02	.11880E+02	.12555E+02	.14385E+02	.21458E+02
.19049E+02	.17641E+02	.16299E+02	.15274E+02	.14371E+02	.13720E+02	.12267E+02	.10887E+02
.93739E+01	.81814E+01	.72885E+01	.63314E+01	.55422E+01	.49969E+01	.45687E+01	.41560E+01
.36341E+01	.29412E+01	.23476E+01	.20481E+01	.18879E+01	.17612E+01	.15044E+01	.13016E+01
.13604E+01							
K= 13							
.87463E+00	.87463E+00	.87463E+00	.87463E+00	.87463E+00	.89942E+00	.92976E+00	.96248E+00
.99792E+00	.10366E+01	.10785E+01	.11351E+01	.13481E+01	.16282E+01	.20315E+01	.24653E+01
.25732E+01	.27091E+01	.29980E+01	.45719E+01	.66572E+01	.10628E+02	.14463E+02	.15925E+02
.17192E+02	.18423E+02	.19319E+02	.19976E+02	.20549E+02	.21063E+02	.21452E+02	.21615E+02
.21546E+02	.20331E+02	.19108E+02	.18010E+02	.16925E+02	.14539E+02	.12600E+02	.11272E+02
.10033E+02	.88500E+01	.82412E+01	.80006E+01	.81386E+01	.90076E+01	.10368E+02	.11522E+02
.97456E+01	.89787E+01	.83260E+01	.77948E+01	.73176E+01	.69660E+01	.63829E+01	.58276E+01
.51838E+01	.46352E+01	.42229E+01	.37846E+01	.33997E+01	.30529E+01	.27424E+01	.24396E+01
.21053E+01	.17445E+01	.14466E+01	.12396E+01	.11153E+01	.10197E+01	.90020E+00	.84751E+00
.89235E+00							
K= 14							
.61546E+00	.61546E+00	.61546E+00	.61546E+00	.61546E+00	.63457E+00	.65802E+00	.68339E+00
.71096E+00	.74120E+00	.77446E+00	.82130E+00	.97474E+00	.11839E+01	.14691E+01	.17779E+01
.18776E+01	.19998E+01	.22475E+01	.32239E+01	.47341E+01	.69737E+01	.92975E+01	.10416E+02
.11514E+02	.12609E+02	.13432E+02	.14040E+02	.14554E+02	.15001E+02	.15331E+02	.15467E+02
.15398E+02	.14432E+02	.13431E+02	.12507E+02	.11522E+02	.96284E+01	.81075E+01	.71439E+01
.63718E+01	.57357E+01	.55840E+01	.56515E+01	.60069E+01	.62499E+01	.62711E+01	.58693E+01
.52055E+01	.48311E+01	.44967E+01	.42015E+01	.39250E+01	.37082E+01	.34179E+01	.31485E+01
.28574E+01	.26178E+01	.24464E+01	.22494E+01	.20606E+01	.18569E+01	.16543E+01	.14554E+01
.12535E+01	.10554E+01	.89140E+00	.75473E+00	.66870E+00	.61032E+00	.56307E+00	.56873E+00
.60788E+00							
K= 15							
.45220E+00	.45220E+00	.45220E+00	.45220E+00	.45220E+00	.46739E+00	.48609E+00	.50637E+00
.52850E+00	.55289E+00	.58012E+00	.62009E+00	.73505E+00	.89731E+00	.11070E+01	.13345E+01
.14274E+01	.15400E+01	.17601E+01	.23774E+01	.34758E+01	.48011E+01	.62654E+01	.70666E+01	
.79485E+01	.88819E+01	.96199E+01	.10179E+02	.10647E+02	.11045E+02	.11333E+02	.11451E+02
.11375E+02	.10579E+02	.97258E+01	.89170E+01	.80280E+01	.65509E+01	.54254E+01	.47775E+01
.43209E+01	.40034E+01	.40627E+01	.40911E+01	.40486E+01	.37791E+01	.35198E+01	.32409E+01
.29968E+01	.28023E+01	.26136E+01	.24336E+01	.22593E+01	.21142E+01	.19422E+01	.17855E+01
.16313E+01	.15151E+01	.14394E+01	.13487E+01	.12552E+01	.11407E+01	.10181E+01	.89486E+00
.77220E+00	.65419E+00	.55541E+00	.46825E+00	.41438E+00	.38348E+00	.36881E+00	.39220E+00
.42994E+00							
K= 16							
.35197E+00	.35197E+00	.35197E+00	.35197E+00	.35197E+00	.36458E+00	.38013E+00	.39705E+00
.41555E+00	.43606E+00	.45929E+00	.49462E+00	.58546E+00	.71763E+00	.88063E+00	.10567E+01
.11441E+01	.12503E+01	.14518E+01	.18637E+01	.26811E+01	.35265E+01	.45193E+01	.51048E+01
.58034E+01	.65875E+01	.72396E+01	.77502E+01	.81784E+01	.85375E+01	.87920E+01	.88893E+01
.87949E+01	.81031E+01	.73399E+01	.66185E+01	.58284E+01	.46981E+01	.38974E+01	.34518E+01
.31785E+01	.29420E+01	.28754E+01	.26951E+01	.25024E+01	.23245E+01	.21736E+01	.20290E+01
.19135E+01	.17977E+01	.16771E+01	.15551E+01	.14335E+01	.13280E+01	.12111E+01	.11052E+01
.10075E+01	.93881E+00	.89569E+00	.84707E+00	.79624E+00	.72960E+00	.65469E+00	.57697E+00
.49846E+00	.42269E+00	.35851E+00	.30182E+00	.26816E+00	.25170E+00	.24944E+00	.27588E+00
.31470E+00							
K= 17							
.29459E+00	.29459E+00	.29459E+00	.29459E+00	.29459E+00	.30564E+00	.31929E+00	.33417E+00
.35047E+00	.36862E+00	.38943E+00	.42190E+00	.49874E+00	.61299E+00	.74916E+00	.89510E+00
.97852E+00	.10806E+01	.12694E+01	.15714E+01	.22144E+01	.28082E+01	.35510E+01	.40204E+01
.46003E+01	.52790E+01	.58655E+01	.63376E+01	.67338E+01	.70599E+01	.72817E+01	.73505E+01
.72225E+01	.65749E+01	.58584E+01	.52016E+01	.44776E+01	.36260E+01	.30424E+01	.26624E+01
.24082E+01	.21536E+01	.20115E+01	.18608E+01	.17201E+01	.16316E+01	.15476E+01	.14621E+01
.13954E+01	.13146E+01	.12258E+01	.11319E+01	.10361E+01	.95057E+00	.85923E+00	.77675E+00
.70296E+00	.65239E+00	.61821E+00	.58422E+00	.55043E+00	.50635E+00	.45601E+00	.40264E+00
.34778E+00	.29458E+00	.24861E+00	.20820E+00	.18439E+00	.17315E+00	.17367E+00	.19694E+00
.23508E+00							
K= 18							
.26853E+00	.26853E+00	.26853E+00	.26853E+00	.26853E+00	.27885E+00	.29160E+00	.30551E+00
.32078E+00	.33782E+00	.35749E+00	.38859E+00	.45902E+00	.56490E+00	.68885E+00	.82086E+00
.90192E+00	.10014E+01	.11826E+01	.14334E+01	.19861E+01	.24557E+01	.30777E+01	.35101E+01

.40402E+01	.46740E+01	.52326E+01	.56874E+01	.60634E+01	.63605E+01	.65450E+01	.65689E+01
.63871E+01	.57168E+01	.49988E+01	.43848E+01	.36641E+01	.30328E+01	.25706E+01	.21987E+01
.19502E+01	.17333E+01	.16181E+01	.15084E+01	.13987E+01	.13529E+01	.13017E+01	.12417E+01
.11949E+01	.11292E+01	.10535E+01	.97031E+00	.88259E+00	.80234E+00	.71846E+00	.64253E+00
.57514E+00	.52840E+00	.49171E+00	.46020E+00	.43181E+00	.39706E+00	.35813E+00	.31675E+00
.27397E+00	.23249E+00	.19596E+00	.16309E+00	.14221E+00	.13084E+00	.12970E+00	.14343E+00
.17499E+00							
K= 19							
.26853E+00	.26853E+00	.26853E+00	.26853E+00	.26853E+00	.27885E+00	.29160E+00	.30551E+00
.32078E+00	.33782E+00	.35749E+00	.38859E+00	.45902E+00	.56488E+00	.68876E+00	.82054E+00
.90109E+00	.99925E+00	.11773E+01	.14180E+01	.19480E+01	.23728E+01	.29574E+01	.34242E+01
.39755E+01	.46365E+01	.52174E+01	.56835E+01	.60508E+01	.63160E+01	.64466E+01	.63917E+01
.61139E+01	.53291E+01	.45683E+01	.40045E+01	.32747E+01	.28024E+01	.24265E+01	.20630E+01
.18391E+01	.16350E+01	.15383E+01	.14481E+01	.13520E+01	.13338E+01	.13048E+01	.12592E+01
.12250E+01	.11658E+01	.10929E+01	.10087E+01	.91389E+00	.82428E+00	.73062E+00	.64494E+00
.56775E+00	.51166E+00	.46022E+00	.42264E+00	.39277E+00	.35962E+00	.32438E+00	.28774E+00
.25035E+00	.21448E+00	.18301E+00	.15381E+00	.13315E+00	.11788E+00	.11204E+00	.11153E+00
.13725E+00							
K= 20							
.29459E+00	.29459E+00	.29459E+00	.29459E+00	.29459E+00	.30564E+00	.31929E+00	.33417E+00
.35047E+00	.36862E+00	.38943E+00	.42190E+00	.49874E+00	.61295E+00	.74885E+00	.89410E+00
.97601E+00	.10741E+01	.12534E+01	.15219E+01	.20920E+01	.25276E+01	.31372E+01	.37293E+01
.43918E+01	.51741E+01	.58380E+01	.63437E+01	.67014E+01	.69099E+01	.69426E+01	.67426E+01
.62749E+01	.52651E+01	.45025E+01	.40603E+01	.33240E+01	.29523E+01	.26090E+01	.22474E+01
.19994E+01	.17708E+01	.16927E+01	.16238E+01	.15438E+01	.15554E+01	.15641E+01	.15335E+01
.15113E+01	.14620E+01	.13900E+01	.12985E+01	.11718E+01	.10483E+01	.91961E+00	.79382E+00
.67672E+00	.59685E+00	.51090E+00	.45438E+00	.41538E+00	.37646E+00	.33797E+00	.29988E+00
.26230E+00	.22737E+00	.19763E+00	.17085E+00	.15171E+00	.13490E+00	.12064E+00	.10530E+00
.10966E+00							
K= 21							
.35197E+00	.35197E+00	.35197E+00	.35197E+00	.35197E+00	.36458E+00	.38013E+00	.39705E+00
.41555E+00	.43606E+00	.45929E+00	.49463E+00	.58546E+00	.71756E+00	.88003E+00	.10549E+01
.11399E+01	.12393E+01	.14239E+01	.17693E+01	.24482E+01	.29363E+01	.36292E+01	.45018E+01
.54149E+01	.64537E+01	.72667E+01	.78240E+01	.81400E+01	.82267E+01	.80637E+01	.76007E+01
.67656E+01	.55126E+01	.49228E+01	.46789E+01	.37648E+01	.35723E+01	.31011E+01	.27161E+01
.24000E+01	.21531E+01	.21030E+01	.20443E+01	.20097E+01	.20867E+01	.21330E+01	.21636E+01
.22036E+01	.21625E+01	.20841E+01	.19755E+01	.18242E+01	.16683E+01	.14518E+01	.12206E+01
.98514E+00	.81139E+00	.66003E+00	.57129E+00	.50698E+00	.45011E+00	.40050E+00	.35295E+00
.30812E+00	.26806E+00	.23612E+00	.21106E+00	.19513E+00	.18095E+00	.16036E+00	.13130E+00
.89899E-01							
K= 22							
.45220E+00	.45220E+00	.45220E+00	.45220E+00	.45220E+00	.46739E+00	.48609E+00	.50637E+00
.52850E+00	.55289E+00	.58012E+00	.62010E+00	.73504E+00	.89722E+00	.11060E+01	.13317E+01
.14213E+01	.15240E+01	.17178E+01	.22155E+01	.30862E+01	.36578E+01	.45097E+01	.59505E+01
.73446E+01	.88348E+01	.98504E+01	.10431E+02	.10621E+02	.10462E+02	.99163E+01	.90208E+01
.75493E+01	.62826E+01	.60416E+01	.60052E+01	.46045E+01	.46794E+01	.39634E+01	.34882E+01
.30737E+01	.28701E+01	.28435E+01	.27638E+01	.28689E+01	.30934E+01	.31419E+01	.33435E+01
.35875E+01	.35250E+01	.34080E+01	.32482E+01	.31268E+01	.30088E+01	.26125E+01	.21509E+01
.16748E+01	.13319E+01	.10406E+01	.84599E+00	.71757E+00	.61664E+00	.53245E+00	.46229E+00
.40049E+00	.34489E+00	.30487E+00	.28129E+00	.26991E+00	.26144E+00	.23567E+00	.19317E+00
.90185E-01							
K= 23							
.61546E+00	.61546E+00	.61546E+00	.61546E+00	.61546E+00	.63457E+00	.65802E+00	.68339E+00
.71096E+00	.74120E+00	.77446E+00	.82131E+00	.97473E+00	.11838E+01	.14673E+01	.17739E+01
.18694E+01	.19777E+01	.21855E+01	.29546E+01	.41201E+01	.48033E+01	.59391E+01	.84460E+01
.10704E+02	.12918E+02	.14139E+02	.14641E+02	.14564E+02	.13986E+02	.12711E+02	.11181E+02
.87582E+01	.79232E+01	.80841E+01	.82384E+01	.60639E+01	.63085E+01	.54139E+01	.47500E+01
.41812E+01	.40761E+01	.40860E+01	.39211E+01	.43013E+01	.48375E+01	.48156E+01	.54100E+01
.62039E+01	.60439E+01	.58167E+01	.55388E+01	.56653E+01	.59400E+01	.51696E+01	.41761E+01
.31617E+01	.24520E+01	.18529E+01	.14573E+01	.11661E+01	.93736E+00	.77716E+00	.66525E+00
.56882E+00	.48356E+00	.41998E+00	.39702E+00	.39642E+00	.39834E+00	.36309E+00	.29099E+00
.10923E+00							
K= 24							
.87463E+00	.87463E+00	.87463E+00	.87463E+00	.87463E+00	.89942E+00	.92976E+00	.96248E+00
.99792E+00	.10366E+01	.10785E+01	.11352E+01	.13480E+01	.16281E+01	.20285E+01	.24594E+01

.25623E+01	.26792E+01	.29077E+01	.41332E+01	.57249E+01	.65598E+01	.81891E+01	.12560E+02
.16322E+02	.19609E+02	.20918E+02	.21153E+02	.20642E+02	.19445E+02	.16817E+02	.14433E+02
.10693E+02	.10826E+02	.11371E+02	.11760E+02	.84728E+01	.89447E+01	.78664E+01	.68388E+01
.59873E+01	.60482E+01	.61208E+01	.57894E+01	.66518E+01	.77731E+01	.75604E+01	.89290E+01
.10979E+02	.10548E+02	.10062E+02	.95391E+01	.10449E+02	.12284E+02	.10751E+02	.85066E+01
.62705E+01	.47525E+01	.34495E+01	.25963E+01	.19856E+01	.15283E+01	.12199E+01	.10158E+01
.86533E+00	.72886E+00	.61229E+00	.59456E+00	.61782E+00	.63698E+00	.58280E+00	.44524E+00
.14964E+00							
K= 25							
.12819E+01	.12819E+01	.12819E+01	.12819E+01	.12819E+01	.13147E+01	.13548E+01	.13979E+01
.14444E+01	.14949E+01	.15490E+01	.16192E+01	.19225E+01	.23091E+01	.28891E+01	.35088E+01
.36207E+01	.37500E+01	.40091E+01	.59708E+01	.81690E+01	.92260E+01	.11684E+02	.19147E+02
.25375E+02	.30247E+02	.31300E+02	.31029E+02	.29920E+02	.27895E+02	.22844E+02	.19336E+02
.13794E+02	.15471E+02	.16457E+02	.17220E+02	.12306E+02	.13206E+02	.11846E+02	.10213E+02
.89020E+01	.92432E+01	.94242E+01	.88108E+01	.10483E+02	.12630E+02	.12035E+02	.14801E+02
.19387E+02	.18346E+02	.17334E+02	.16345E+02	.19113E+02	.25614E+02	.22586E+02	.17449E+02
.12512E+02	.92676E+01	.64392E+01	.46276E+01	.33869E+01	.25103E+01	.19477E+01	.15976E+01
.13654E+01	.11409E+01	.93748E+00	.93175E+00	.99805E+00	.10466E+01	.95926E+00	.70544E+00
.22105E+00							
K= 26							
.19191E+01	.19191E+01	.19191E+01	.19191E+01	.19191E+01	.19632E+01	.20168E+01	.20742E+01
.21360E+01	.22027E+01	.22736E+01	.23621E+01	.28022E+01	.33482E+01	.42016E+01	.51062E+01
.52289E+01	.53753E+01	.56794E+01	.88021E+01	.11858E+02	.13271E+02	.17059E+02	.29508E+02
.39478E+02	.46431E+02	.46989E+02	.45902E+02	.44031E+02	.40976E+02	.31817E+02	.26751E+02
.18649E+02	.22609E+02	.24308E+02	.25670E+02	.18286E+02	.19958E+02	.18205E+02	.15614E+02
.13586E+02	.14402E+02	.14770E+02	.13700E+02	.16709E+02	.20585E+02	.19311E+02	.24471E+02
.33737E+02	.31501E+02	.29518E+02	.27709E+02	.34231E+02	.52318E+02	.46521E+02	.35015E+02
.24425E+02	.17700E+02	.11799E+02	.81379E+01	.57453E+01	.41397E+01	.31517E+01	.25645E+01
.22038E+01	.18335E+01	.14880E+01	.15053E+01	.16467E+01	.17452E+01	.15994E+01	.11443E+01
.34194E+00							
K= 27							
.29147E+01	.29147E+01	.29147E+01	.29147E+01	.29147E+01	.29740E+01	.30460E+01	.31229E+01
.32052E+01	.32939E+01	.33872E+01	.35002E+01	.41461E+01	.49302E+01	.61980E+01	.75317E+01
.76674E+01	.78360E+01	.82056E+01	.13131E+02	.17412E+02	.19404E+02	.25243E+02	.45541E+02
.61618E+02	.70469E+02	.70328E+02	.68264E+02	.65413E+02	.61142E+02	.45342E+02	.37971E+02
.26129E+02	.33453E+02	.36414E+02	.38693E+02	.27559E+02	.30572E+02	.28306E+02	.24234E+02
.21099E+02	.22721E+02	.23410E+02	.21612E+02	.26816E+02	.33547E+02	.31127E+02	.40277E+02
.57684E+02	.53309E+02	.49652E+02	.46471E+02	.59878E+02	.10292E+03	.92270E+02	.67697E+02
.46063E+02	.32755E+02	.21088E+02	.14084E+02	.96838E+01	.68451E+01	.51514E+01	.41759E+01
.36086E+01	.29984E+01	.24189E+01	.24793E+01	.27509E+01	.29335E+01	.26848E+01	.18817E+01
.54395E+00							
K= 28							
.44691E+01	.44691E+01	.44691E+01	.44691E+01	.44691E+01	.45487E+01	.46450E+01	.47476E+01
.48572E+01	.49746E+01	.50973E+01	.52421E+01	.61967E+01	.73368E+01	.92290E+01	.11211E+02
.11361E+02	.11558E+02	.12022E+02	.19692E+02	.25803E+02	.28667E+02	.37602E+02	.70099E+02
.96008E+02	.10707E+03	.10530E+03	.10189E+03	.97688E+02	.92008E+02	.65749E+02	.54822E+02
.37506E+02	.49904E+02	.54974E+02	.58720E+02	.41903E+02	.47207E+02	.44310E+02	.37970E+02
.33142E+02	.36129E+02	.37368E+02	.34419E+02	.43215E+02	.54615E+02	.50306E+02	.66014E+02
.97106E+02	.89104E+02	.82674E+02	.77264E+02	.10263E+03	.19394E+03	.17517E+03	.12571E+03
.83842E+02	.58762E+02	.36847E+02	.24045E+02	.16239E+02	.11340E+02	.84778E+01	.68645E+01
.59617E+01	.49578E+01	.39917E+01	.41326E+01	.46290E+01	.49532E+01	.45229E+01	.31188E+01
.88012E+00							
K= 29							
.68950E+01	.68950E+01	.68950E+01	.68950E+01	.68950E+01	.70009E+01	.71286E+01	.72642E+01
.74085E+01	.75626E+01	.77225E+01	.79072E+01	.93246E+01	.10997E+02	.13829E+02	.16788E+02
.16954E+02	.17183E+02	.17783E+02	.29631E+02	.38478E+02	.42665E+02	.56263E+02	.10749E+03
.14877E+03	.16260E+03	.15788E+03	.15246E+03	.14629E+03	.13880E+03	.96388E+02	.80108E+02
.54718E+02	.74850E+02	.83354E+02	.89489E+02	.64070E+02	.73245E+02	.69638E+02	.59850E+02
.52441E+02	.57739E+02	.59912E+02	.55146E+02	.69816E+02	.88821E+02	.81433E+02	.10785E+03
.16154E+03	.14756E+03	.13664E+03	.12766E+03	.17321E+03	.35132E+03	.31932E+03	.22531E+03
.14813E+03	.10279E+03	.63269E+02	.40645E+02	.27133E+02	.18808E+02	.14014E+02	.11352E+02
.99036E+01	.82537E+01	.66482E+01	.69381E+01	.78227E+01	.83847E+01	.76345E+01	.51936E+01
.14387E+01							
K= 30							
.10681E+02	.10681E+02	.10681E+02	.10681E+02	.10681E+02	.10819E+02	.10985E+02	.11161E+02

.11348E+02	.11547E+02	.11752E+02	.11984E+02	.14095E+02	.16561E+02	.20808E+02	.25240E+02
.25420E+02	.25686E+02	.26478E+02	.44678E+02	.57621E+02	.63826E+02	.84438E+02	.16423E+03
.22915E+03	.24656E+03	.23698E+03	.22853E+03	.21943E+03	.20942E+03	.14243E+03	.11812E+03
.80702E+02	.11267E+03	.12670E+03	.13674E+03	.98306E+02	.11398E+03	.10971E+03	.94692E+02
.83363E+02	.92563E+02	.96321E+02	.88694E+02	.11297E+03	.14433E+03	.13195E+03	.17582E+03
.26648E+03	.24281E+03	.22458E+03	.21005E+03	.28922E+03	.61655E+03	.56336E+03	.39294E+03
.25596E+03	.17652E+03	.10[illegible]2E+03	.68246E+02	.45228E+02	.31221E+02	.23232E+02	.18842E+02
.16507E+02	.13797E+02	.11[illegible]34E+02	.11699E+02	.13253E+02	.14214E+02	.12902E+02	.86729E+01
.23664E+01							
K= 31							
.16589E+02	.16589E+02	.16589E+02	.16589E+02	.16589E+02	.16764E+02	.16975E+02	.17197E+02
.17432E+02	.17681E+02	.17936E+02	.18221E+02	.21369E+02	.25022E+02	.31397E+02	.38051E+02
.38235E+02	.38535E+02	.39599E+02	.67457E+02	.86524E+02	.95820E+02	.12698E+03	.25020E+03
.35109E+03	.37332E+03	.35603E+03	.34296E+03	.32945E+03	.31580E+03	.21163E+03	.17529E+03
.11989E+03	.17001E+03	.[illegible]287E+03	.20928E+03	.15117E+03	.17770E+03	.17308E+03	.15017E+03
.13291E+03	.14868E+03	.15512E+03	.14299E+03	.18296E+03	.23440E+03	.21391E+03	.28619E+03
.43715E+03	.39786E+03	.36822E+03	.34467E+03	.47950E+03	.10574E+04	.97045E+03	.67217E+03
.43557E+03	.29941E+03	.18059E+03	.11409E+03	.75278E+02	.51850E+02	.38579E+02	.31346E+02
.27568E+02	.23122E+02	.18710E+02	.19776E+02	.22486E+02	.24117E+02	.21816E+02	.14508E+02
.39067E+01							
K= 32							
.25808E+02	.25808E+02	.25808E+02	.25808E+02	.25808E+02	.26021E+02	.26275E+02	.26543E+02
.26826E+02	.27124E+02	.27428E+02	.27760E+02	.32462E+02	.37885E+02	.47461E+02	.57463E+02
.57633E+02	.57952E+02	.59400E+02	.10194E+03	.13016E+03	.14419E+03	.19120E+03	.38035E+03
.53571E+03	.56454E+03	.53525E+03	.51511E+03	.49490E+03	.47585E+03	.31565E+03	.26131E+03
.17898E+03	.25695E+03	.29385E+03	.32065E+03	.23280E+03	.27737E+03	.27332E+03	.23852E+03
.21229E+03	.23911E+03	.25009E+03	.23087E+03	.29648E+03	.38052E+03	.34692E+03	.46540E+03
.71456E+03	.65016E+03	.60218E+03	.56459E+03	.79138E+03	.17850E+04	.16447E+04	.11351E+04
.73386E+03	.50380E+03	.30233E+03	.19023E+03	.12518E+03	.86138E+02	.64132E+02	.52221E+02
.46096E+02	.38805E+02	.31503E+02	.33483E+02	.38185E+02	.40941E+02	.36905E+02	.24292E+02
.64640E+01							
K= 33							
.40194E+02	.40194E+02	.40194E+02	.40194E+02	.40194E+02	.40433E+02	.40717E+02	.41016E+02
.41330E+02	.41660E+02	.41994E+02	.42352E+02	.49376E+02	.57441E+02	.71834E+02	.86882E+02
.86994E+02	.87292E+02	.89279E+02	.15412E+03	.19605E+03	.21734E+03	.28818E+03	.57729E+03
.81493E+03	.85290E+03	.80503E+03	.77409E+03	.74370E+03	.71654E+03	.47202E+03	.39073E+03
.26804E+03	.38876E+03	.44794E+03	.49162E+03	.35883E+03	.43327E+03	.43184E+03	.37918E+03
.33947E+03	.38483E+03	.40346E+03	.37310E+03	.48063E+03	.61759E+03	.56276E+03	.75638E+03
.11653E+04	.10606E+04	.98349E+03	.92382E+03	.13024E+04	.29823E+04	.27577E+04	.19010E+04
.12286E+04	.84342E+03	.50454E+03	.31663E+03	.20803E+03	.14313E+03	.10668E+03	.87067E+02
.77134E+02	.65185E+02	.53107E+02	.56739E+02	.64876E+02	.69519E+02	.62442E+02	.40700E+02
.10710E+02							
K= 34							
.62643E+02	.62643E+02	.62643E+02	.62643E+02	.62643E+02	.62872E+02	.63144E+02	.63428E+02
.63727E+02	.64038E+02	.64350E+02	.64672E+02	.75169E+02	.87172E+02	.10631E+03	.13146E+03
.13144E+03	.13163E+03	.13436E+03	.23312E+03	.29552E+03	.32794E+03	.43459E+03	.87527E+03
.12370E+04	.12877E+04	.12112E+04	.11637E+04	.11178E+04	.10784E+04	.70709E+03	.58548E+03
.40229E+03	.58861E+03	.68308E+03	.75408E+03	.55342E+03	.67711E+03	.68255E+03	.60315E+03
.54323E+03	.61965E+03	.65114E+03	.60330E+03	.77930E+03	.10022E+04	.91300E+03	.12288E+04
.18977E+04	.17284E+04	.16049E+04	.15106E+04	.21395E+04	.49502E+04	.45928E+04	.31670E+04
.20487E+04	.14076E+04	.84034E+03	.52647E+03	.34561E+03	.23784E+03	.17752E+03	.14524E+03
.12913E+03	.10955E+03	.89588E+02	.96201E+02	.11026E+03	.11807E+03	.10567E+03	.68215E+02
.17758E+02							
K= 35							
.97674E+02	.97674E+02	.976[illegible]4E+02	.97674E+02	.97674E+02	.97809E+02	.97968E+02	.98135E+02
.98308E+02	.98488E+02	.98659E+02	.98812E+02	.11450E+03	.13237E+03	.16491E+03	.19902E+03
.19870E+03	.19862E+03	.20240E+03	.35268E+03	.44570E+03	.49519E+03	.65564E+03	.13261E+04
.18750E+04	.19432E+04	.18227E+04	.17498E+04	.16804E+04	.16224E+04	.10605E+04	.87854E+03
.60462E+03	.89162E+03	.10419E+04	.11570E+04	.85383E+03	.10585E+04	.10791E+04	.95978E+03
.86969E+03	.99804E+03	.10511E+04	.97588E+03	.12638E+04	.16261E+04	.14813E+04	.19959E+04
.30877E+04	.28146E+04	.26176E+04	.24691E+04	.35108E+04	.81829E+04	.76166E+04	.52593E+04
.34079E+04	.23446E+04	.13980E+04	.87485E+03	.57405E+03	.39527E+03	.29548E+03	.24235E+03
.21622E+03	.18418E+03	.15119E+03	.16316E+03	.18742E+03	.20054E+03	.17882E+03	.11436E+03
.29460E+02							
K= 36							

.17355E+03	.17355E+03	.17355E+03	.17355E+03	.17355E+03	.17313E+03	.17263E+03	.17212E+03
.17159E+03	.17103E+03	.17045E+03	.16976E+03	.19572E+03	.22514E+03	.27957E+03	.33674E+03
.33553E+03	.33444E+03	.33994E+03	.59617E+03	.74959E+03	.83499E+03	.11039E+04	.22447E+04
.31670E+04	.32623E+04	.30512E+04	.29262E+04	.28084E+04	.27123E+04	.17693E+04	.14680E+04
.10128E+04	.15121E+04	.17848E+04	.20014E+04	.14909E+04	.18895E+04	.19624E+04	.17655E+04
.16173E+04	.18754E+04	.19830E+04	.18481E+04	.24032E+04	.30941E+04	.28193E+04	.38038E+04
.58953E+04	.53850E+04	.50236E+04	.47579E+04	.68056E+04	.15987E+05	.14968E+05	.10385E+05
.67637E+04	.46741E+04	.27846E+04	.17401E+04	.11412E+04	.78672E+03	.58983E+03	.48604E+03
.43643E+03	.37463E+03	.30982E+03	.33748E+03	.38925E+03	.41585E+03	.36825E+03	.23139E+03
.58451E+02							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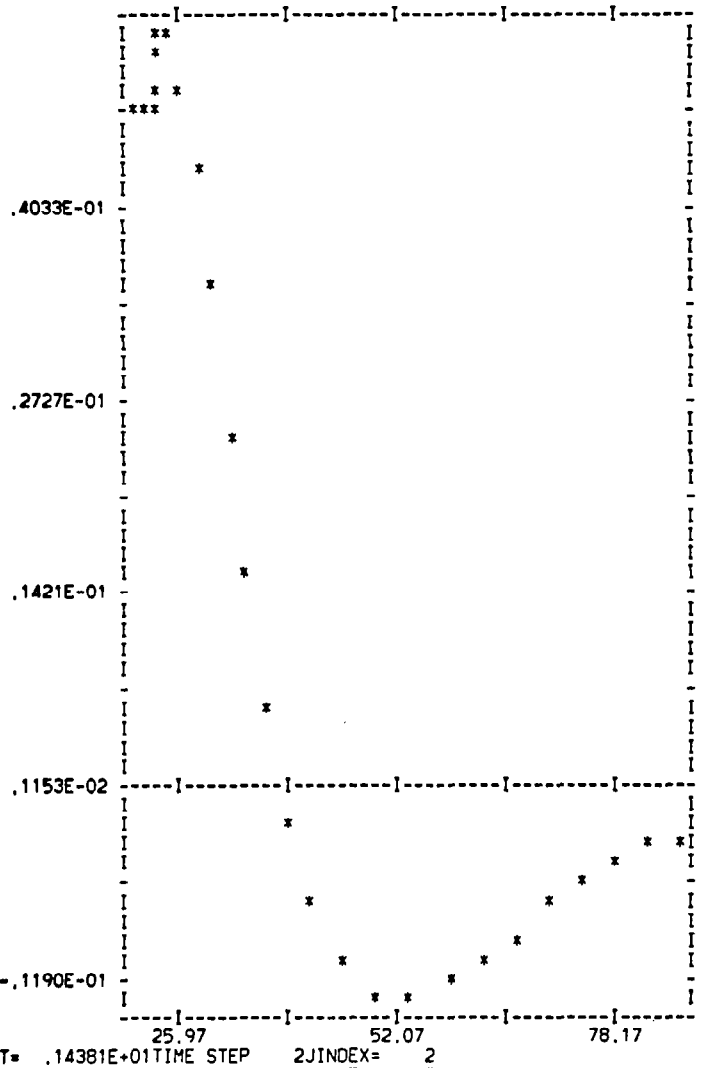

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MDOT= .93904E+00TIME STEP 2JINDEX= 22
MDOT= .10173E+01TIME STEP 2JINDEX= 27
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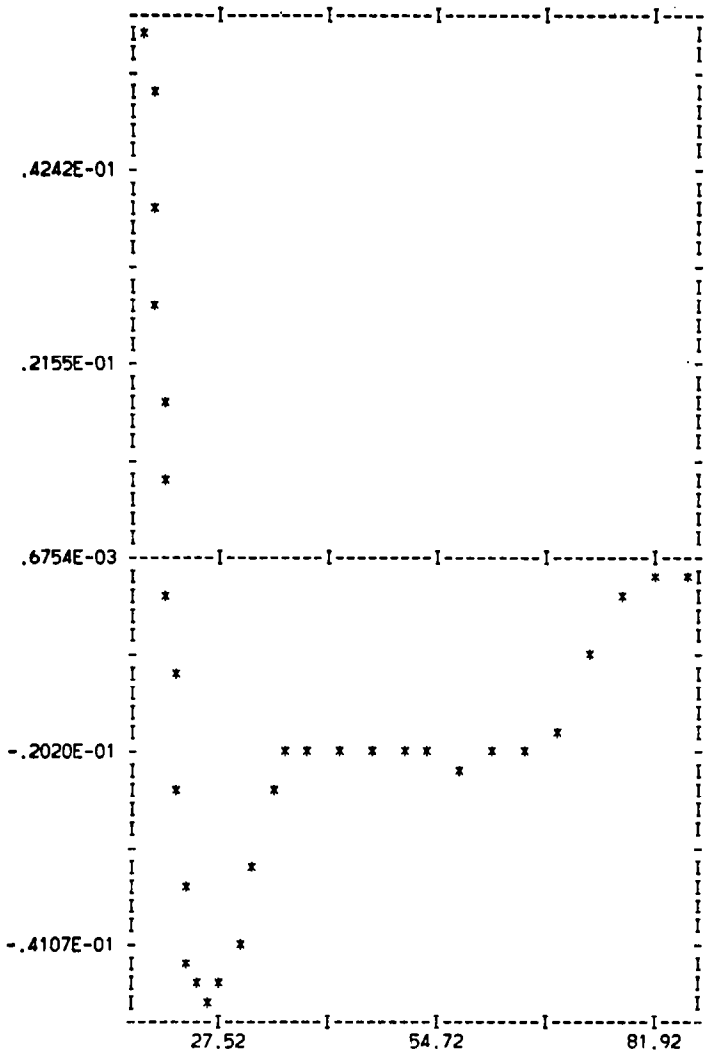
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54.72
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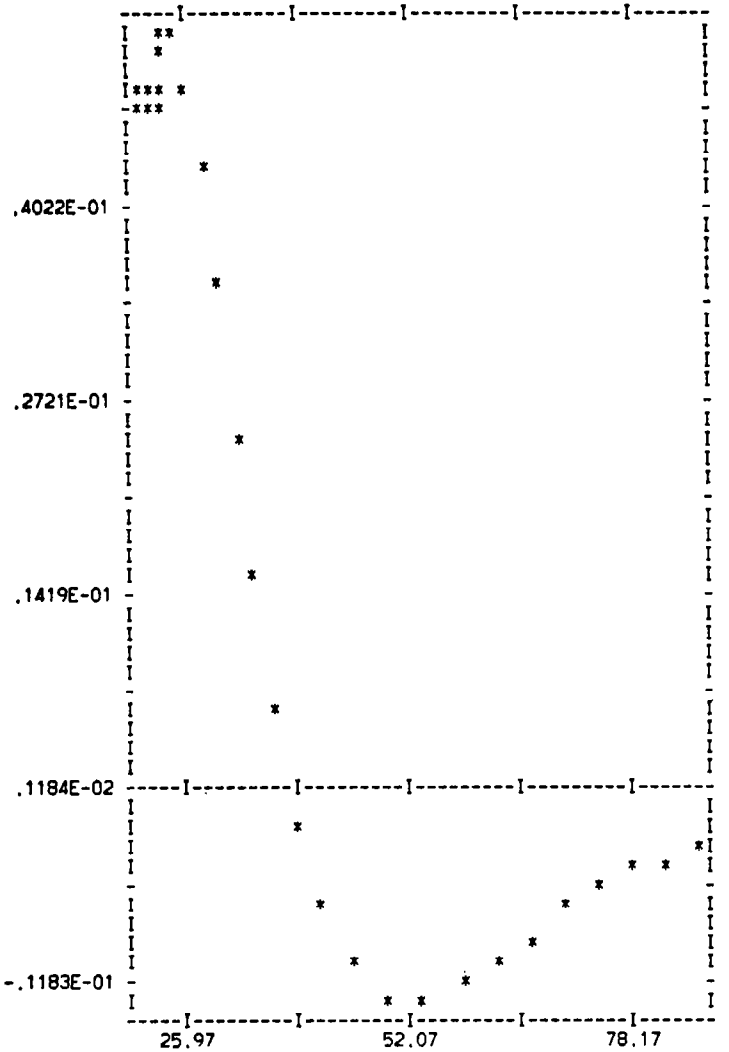

ITER= 1 TIME= .0002 DT= .0001
MAX. TOTAL ENTHALPY ERR.= 48.05% AT FIRST INDEX= 52. SECOND INDEX= 36. R.M.S. OF TOT. ENTH. ERR. OVER ENTIRE FIELD= 4.78%.

SECOND INDEX= 1

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9750E+00	.9809E+00	.9997E+00	0.	.9791E+00	.1002E+01	.9978E+00	.3509E+01	-.9997E+00	.1421E-13	-.2913E-02
2	.9737E+00	.9807E+00	.9997E+00	-.5258E-02	.9787E+00	.1001E+01	.9975E+00	.3512E+01	-.9997E+00	.5258E-02	-.3073E-02
3	.9706E+00	.9786E+00	.9997E+00	-.5823E-02	.9763E+00	.1000E+01	.9971E+00	.3513E+01	-.9997E+00	.5823E-02	-.3434E-02
4	.9642E+00	.9739E+00	.9996E+00	-.7118E-02	.9711E+00	.1001E+01	.9966E+00	.3516E+01	-.9996E+00	.7118E-02	-.4173E-02

5	.9542E+00	.9663E+00	.9996E+00	-.9198E-02	.9631E+00	.1001E+01	.9958E+00	.3521E+01	-.9997E+00	.2669E-01	-.5343E-02
6	.9408E+00	.9563E+00	.9996E+00	-.1202E-01	.9523E+00	.1001E+01	.9949E+00	.3528E+01	-.1000E+01	.4951E-01	-.6909E-02
7	.9250E+00	.9446E+00	.9997E+00	-.1542E-01	.9399E+00	.1002E+01	.9937E+00	.3536E+01	-.1001E+01	.5541E-01	-.8752E-02
8	.9087E+00	.9327E+00	.9999E+00	-.1900E-01	.9274E+00	.1002E+01	.9927E+00	.3546E+01	-.1001E+01	.5899E-01	-.1064E-01
9	.8950E+00	.9228E+00	.1000E+01	-.2213E-01	.9173E+00	.1002E+01	.9921E+00	.3556E+01	-.1001E+01	.6214E-01	-.1224E-01
10	.8874E+00	.9175E+00	.1001E+01	-.2398E-01	.9124E+00	.1001E+01	.9923E+00	.3563E+01	-.1002E+01	.6276E-01	-.1313E-01
11	.8901E+00	.9195E+00	.1002E+01	-.2357E-01	.9159E+00	.1001E+01	.9938E+00	.3565E+01	-.1002E+01	.6276E-01	-.1282E-01
12	.9068E+00	.9312E+00	.1003E+01	-.2003E-01	.9302E+00	.1002E+01	.9969E+00	.3558E+01	-.1002E+01	.6036E-01	-.1087E-01
13	.9403E+00	.9541E+00	.1004E+01	-.1289E-01	.9571E+00	.1004E+01	.1002E+01	.3540E+01	-.9945E+00	.5323E-01	-.6968E-02
14	.9911E+00	.9886E+00	.1005E+01	-.2313E-02	.9964E+00	.1007E+01	.1007E+01	.3512E+01	-.1002E+01	.4218E-01	-.1035E-02
15	.1057E+01	.1033E+01	.1005E+01	.1086E-01	.1046E+01	.1010E+01	.1014E+01	.3476E+01	-.1001E+01	.1376E-01	.6698E-02
16	.1135E+01	.1086E+01	.1004E+01	.2533E-01	.1103E+01	.1011E+01	.1019E+01	.3437E+01	-.1006E+01	-.2541E-01	.1571E-01
17	.1217E+01	.1142E+01	.1002E+01	.3967E-01	.1163E+01	.1010E+01	.1022E+01	.3399E+01	-.1004E+01	-.3973E-01	.2525E-01
18	.1296E+01	.1197E+01	.9991E+00	.5264E-01	.1220E+01	.1007E+01	.1025E+01	.3366E+01	-.1005E+01	-.5294E-01	.3450E-01
19	.1365E+01	.1247E+01	.9962E+00	.6324E-01	.1270E+01	.1002E+01	.1025E+01	.3339E+01	-.1018E+01	-.6677E-01	.4256E-01
20	.1416E+01	.1285E+01	.9936E+00	.7073E-01	.1307E+01	.9973E+00	.1024E+01	.3321E+01	-.1075E+01	-.1075E+00	.4853E-01
21	.1443E+01	.1306E+01	.9916E+00	.7446E-01	.1326E+01	.9930E+00	.1023E+01	.3311E+01	-.1056E+01	-.9869E-01	.5163E-01
22	.1445E+01	.1311E+01	.9906E+00	.7483E-01	.1328E+01	.9897E+00	.1021E+01	.3311E+01	-.1130E+01	-.1585E+00	.5193E-01
23	.1431E+01	.1303E+01	.9907E+00	.7294E-01	.1319E+01	.9882E+00	.1019E+01	.3317E+01	-.1028E+01	-.8200E-01	.5030E-01
24	.1416E+01	.1294E+01	.9914E+00	.7104E-01	.1310E+01	.9871E+00	.1019E+01	.3325E+01	-.1011E+01	-.6973E-01	.4855E-01
25	.1407E+01	.1289E+01	.9921E+00	.6999E-01	.1305E+01	.9863E+00	.1019E+01	.3331E+01	-.1002E+01	-.6085E-01	.4749E-01
26	.1404E+01	.1287E+01	.9924E+00	.6966E-01	.1303E+01	.9855E+00	.1019E+01	.3334E+01	-.9974E+00	-.5791E-01	.4709E-01
27	.1403E+01	.1288E+01	.9923E+00	.6967E-01	.1303E+01	.9849E+00	.1019E+01	.3335E+01	-.9933E+00	-.5975E-01	.4705E-01
28	.1404E+01	.1289E+01	.9920E+00	.6974E-01	.1304E+01	.9845E+00	.1018E+01	.3334E+01	-.9904E+00	-.4601E-01	.4715E-01
29	.1405E+01	.1290E+01	.9917E+00	.6979E-01	.1304E+01	.9842E+00	.1018E+01	.3333E+01	-.9903E+00	-.2636E-01	.4727E-01
30	.1406E+01	.1291E+01	.9917E+00	.6981E-01	.1305E+01	.9839E+00	.1018E+01	.3333E+01	-.9882E+00	-.3060E-01	.4736E-01
31	.1406E+01	.1291E+01	.9917E+00	.6977E-01	.1305E+01	.9835E+00	.1018E+01	.3334E+01	-.9921E+00	-.8502E-02	.4740E-01
32	.1407E+01	.1292E+01	.9919E+00	.6968E-01	.1306E+01	.9829E+00	.1018E+01	.3335E+01	-.9984E+00	.1423E-01	.4741E-01
33	.1406E+01	.1292E+01	.9921E+00	.6955E-01	.1307E+01	.9821E+00	.1018E+01	.3337E+01	-.9959E+00	.4080E-02	.4739E-01
34	.1406E+01	.1293E+01	.9924E+00	.6931E-01	.1308E+01	.9814E+00	.1018E+01	.3339E+01	-.9994E+00	.1291E-01	.4732E-01
35	.1405E+01	.1293E+01	.9926E+00	.6898E-01	.1308E+01	.9808E+00	.1018E+01	.3341E+01	-.1004E+01	.2219E-01	.4721E-01
36	.1404E+01	.1292E+01	.9929E+00	.6855E-01	.1308E+01	.9804E+00	.1018E+01	.3342E+01	-.1007E+01	.2749E-01	.4706E-01
37	.1402E+01	.1291E+01	.9931E+00	.6803E-01	.1307E+01	.9802E+00	.1018E+01	.3344E+01	-.1014E+01	.4004E-01	.4688E-01
38	.1400E+01	.1290E+01	.9933E+00	.6744E-01	.1306E+01	.9802E+00	.1019E+01	.3345E+01	-.1020E+01	.4882E-01	.4665E-01
39	.1398E+01	.1288E+01	.9935E+00	.6676E-01	.1304E+01	.9804E+00	.1019E+01	.3346E+01	-.1021E+01	.4638E-01	.4636E-01
40	.1394E+01	.1285E+01	.9936E+00	.6596E-01	.1302E+01	.9808E+00	.1019E+01	.3347E+01	-.1020E+01	.4168E-01	.4595E-01
41	.1389E+01	.1281E+01	.9936E+00	.6495E-01	.1297E+01	.9814E+00	.1018E+01	.3348E+01	-.1018E+01	.4713E-01	.4532E-01
42	.1380E+01	.1275E+01	.9936E+00	.6360E-01	.1290E+01	.9825E+00	.1018E+01	.3349E+01	-.1067E+01	.8263E-01	.4434E-01
43	.1367E+01	.1264E+01	.9934E+00	.6171E-01	.1279E+01	.9845E+00	.1017E+01	.3350E+01	-.1064E+01	.8123E-01	.4282E-01
44	.1350E+01	.1250E+01	.9930E+00	.5943E-01	.1263E+01	.9874E+00	.1016E+01	.3351E+01	-.1058E+01	.7662E-01	.4084E-01
45	.1331E+01	.1235E+01	.9923E+00	.5702E-01	.1245E+01	.9906E+00	.1014E+01	.3351E+01	-.1035E+01	.4915E-01	.3857E-01
46	.1312E+01	.1219E+01	.9915E+00	.5468E-01	.1227E+01	.9943E+00	.1012E+01	.3350E+01	-.1061E+01	.8496E-01	.3635E-01
47	.1300E+01	.1207E+01	.9905E+00	.5259E-01	.1213E+01	.9995E+00	.1011E+01	.3345E+01	-.1095E+01	.1267E+00	.3499E-01
48	.1287E+01	.1195E+01	.9895E+00	.5095E-01	.1199E+01	.1003E+01	.1009E+01	.3342E+01	-.9993E+00	.5566E-01	.3351E-01
49	.1280E+01	.1189E+01	.9888E+00	.4994E-01	.1191E+01	.1004E+01	.1008E+01	.3341E+01	-.9480E+00	.6357E-01	.3261E-01
50	.1278E+01	.1190E+01	.9886E+00	.4984E-01	.1191E+01	.1002E+01	.1007E+01	.3342E+01	-.9871E+00	.4881E-01	.3247E-01
51	.1277E+01	.1191E+01	.9884E+00	.5013E-01	.1192E+01	.9999E+00	.1006E+01	.3345E+01	-.1003E+01	.5054E-01	.3236E-01
52	.1273E+01	.1187E+01	.9876E+00	.4920E-01	.1186E+01	.1002E+01	.1005E+01	.3341E+01	.1777E+00	-.9959E+00	.3189E-01
53	.1269E+01	.1185E+01	.9884E+00	.4844E-01	.1185E+01	.1001E+01	.1006E+01	.3346E+01	.9552E+00	-.2666E+00	.3136E-01
54	.1267E+01	.1184E+01	.9886E+00	.4822E-01	.1184E+01	.1001E+01	.1006E+01	.3348E+01	.1052E+01	-.2992E+00	.3117E-01
55	.1265E+01	.1182E+01	.9888E+00	.4799E-01	.1183E+01	.1001E+01	.1006E+01	.3350E+01	.1468E+01	-.5904E+00	.3089E-01
56	.1260E+01	.1179E+01	.9894E+00	.4720E-01	.1180E+01	.1000E+01	.1006E+01	.3354E+01	.1126E+01	-.3246E+00	.3031E-01
57	.1252E+01	.1175E+01	.9902E+00	.4609E-01	.1177E+01	.9987E+00	.1007E+01	.3362E+01	.1016E+01	-.2734E+00	.2937E-01
58	.1238E+01	.1168E+01	.9913E+00	.4456E-01	.1170E+01	.9964E+00	.1007E+01	.3373E+01	.9985E+00	-.2467E+00	.2773E-01
59	.1222E+01	.1158E+01	.9928E+00	.4230E-01	.1161E+01	.9949E+00	.1007E+01	.3386E+01	.1016E+01	-.2099E+00	.2590E-01
60	.1201E+01	.1145E+01	.9948E+00	.3898E-01	.1149E+01	.9938E+00	.1008E+01	.3402E+01	.1103E+01	-.2424E+00	.2340E-01
61	.1172E+01	.1126E+01	.9973E+00	.3440E-01	.1133E+01	.9931E+00	.1009E+01	.3423E+01	.1028E+01	-.2150E+00	.2012E-01
62	.1140E+01	.1104E+01	.1000E+01	.2886E-01	.1113E+01	.9926E+00	.1010E+01	.3446E+01	.1007E+01	-.1977E+00	.1629E-01
63	.1104E+01	.1079E+01	.1003E+01	.2260E-01	.1090E+01	.9926E+00	.1011E+01	.3471E+01	.1008E+01	-.1948E+00	.1217E-01
64	.1069E+01	.1054E+01	.1006E+01	.1594E-01	.1067E+01	.9929E+00	.1012E+01	.3496E+01	.1016E+01	-.1739E+00	.8072E-02
65	.1038E+01	.1032E+01	.1008E+01	.9547E-02	.1045E+01	.9935E+00	.1012E+01	.3516E+01	.1042E+01	-.1856E+00	.4416E-02
66	.1013E+01	.1014E+01	.1008E+01	.4030E-02	.1027E+01	.9942E+00	.1012E+01	.3530E+01	.1133E+01	-.2354E+00	.1550E-02
67	.9977E+00	.1002E+01	.1008E+01	.1085E-03	.1014E+01	.9948E+00	.1010E+01	.3536E+01	.1048E+01	-.1530E+00	-.2710E-03
68	.9916E+00	.9974E+00	.1007E+01	-.1793E-02	.1006E+01	.9952E+00	.1008E+01	.3534E+01	.1026E+01	-.1246E+00	-.9849E-03
69	.9921E+00	.9974E+00	.1005E+01	-.2133E-02	.1004E+01	.9957E+00	.1006E+01	.3527E+01	.1023E+01	-.1146E+00	-.9226E-03

70	.9954E+00	.9993E+00	.1003E+01	-.1670E-02	.1003E+01	.9963E+00	.1003E+01	.3518E+01	.1030E+01	-.1112E+00	-.5357E-03
71	.9985E+00	.1001E+01	.1002E+01	-.1060E-02	.1003E+01	.9969E+00	.1002E+01	.3510E+01	.1074E+01	-.1246E+00	-.1718E-03
72	.1000E+01	.1002E+01	.1001E+01	-.7035E-03	.1003E+01	.9975E+00	.1001E+01	.3506E+01	.1020E+01	-.7373E-01	.2579E-04
73	.1001E+01	.1002E+01	.1001E+01	-.7035E-03	.1003E+01	.9986E+00	.1001E+01	.3504E+01	.1002E+01	-.4074E-01	.1480E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.1736E+03	.9000E+02	.8600E+01	0.	-.2500E+00	-.7892E-10	0.	.9865E-11	-.6942E+03	.9940E+00
2	.1736E+03	.8600E+02	.8600E+01	0.	-.2500E+00	-.1065E-08	0.	0.	-.6942E+03	.9928E+00
3	.1736E+03	.8200E+02	.8600E+01	0.	-.2500E+00	-.6737E-08	0.	0.	-.6942E+03	.9917E+00
4	.1736E+03	.7800E+02	.8600E+01	0.	-.2500E+00	-.2944E-07	0.	0.	-.6942E+03	.9901E+00
5	.1736E+03	.7400E+02	.8600E+01	0.	-.2500E+00	-.1136E-06	0.	.1215E+02	-.6942E+03	.9874E+00
6	.1731E+03	.7000E+02	.8460E+01	0.	-.2500E+00	-.4633E-06	0.	.2597E+02	-.6925E+03	.9837E+00
7	.1726E+03	.6600E+02	.8300E+01	0.	-.2500E+00	-.1980E-05	0.	.2762E+02	-.6905E+03	.9792E+00
8	.1721E+03	.6200E+02	.8140E+01	0.	-.2500E+00	-.8839E-05	0.	.2754E+02	-.6885E+03	.9743E+00
9	.1716E+03	.5800E+02	.7980E+01	0.	-.2500E+00	-.4208E-04	0.	.2745E+02	-.6863E+03	.9699E+00
10	.1710E+03	.5400E+02	.7820E+01	0.	-.2500E+00	-.2113E-03	0.	.2651E+02	-.6841E+03	.9673E+00
11	.1705E+03	.5000E+02	.7670E+01	0.	-.2500E+00	-.1126E-02	0.	.2668E+02	-.6818E+03	.9680E+00
12	.1698E+03	.4600E+02	.7507E+01	0.	-.2497E+00	-.6601E-02	0.	.2733E+02	-.6790E+03	.9738E+00
13	.1957E+03	.4200E+02	.7348E+01	0.	-.2835E+00	-.5609E-01	0.	.2711E+02	-.6850E+03	.9855E+00
14	.2251E+03	.3900E+02	.7230E+01	0.	-.3322E+00	-.2873E-01	0.	.2679E+02	-.6754E+03	.1003E+01
15	.2802E+03	.3600E+02	.7110E+01	0.	-.3970E+00	-.1241E+00	0.	.1681E+02	-.7005E+03	.1023E+01
16	.3375E+03	.3400E+02	.7110E+01	0.	-.5000E+00	-.3954E-01	0.	0.	-.6751E+03	.1045E+01
17	.3366E+03	.3200E+02	.7110E+01	0.	-.5000E+00	-.2719E-01	0.	0.	-.6731E+03	.1065E+01
18	.3375E+03	.3000E+02	.7110E+01	0.	-.5000E+00	-.5411E-01	0.	0.	-.6749E+03	.1082E+01
19	.3536E+03	.2800E+02	.7110E+01	0.	-.5000E+00	-.1693E+00	0.	0.	-.7073E+03	.1095E+01
20	.6790E+03	.2600E+02	.7110E+01	0.	-.6667E+00	-.7626E+00	0.	0.	-.1018E+04	.1102E+01
21	.8878E+03	.2500E+02	.7110E+01	0.	-.1000E+01	-.8698E+00	0.	0.	-.8878E+03	.1105E+01
22	.2253E+04	.2400E+02	.7110E+01	0.	-.1600E+01	-.2987E+01	0.	0.	-.1408E+04	.1103E+01
23	.3011E+04	.2375E+02	.7110E+01	0.	-.4000E+01	-.2054E+01	0.	0.	-.7528E+03	.1099E+01
24	.2792E+04	.2350E+02	.7110E+01	0.	-.3995E+01	-.1151E+01	0.	.2792E+01	-.6981E+03	.1094E+01
25	.2719E+04	.2325E+02	.7108E+01	0.	-.3993E+01	-.6866E+00	0.	.6796E+01	-.6796E+03	.1092E+01
26	.2685E+04	.2300E+02	.7105E+01	0.	-.3996E+01	-.3458E+00	0.	.8055E+01	-.6712E+03	.1090E+01
27	.2674E+04	.2275E+02	.7102E+01	0.	-.3999E+01	-.6913E-01	0.	.6684E+01	-.6684E+03	.1090E+01
28	.2677E+04	.2250E+02	.7100E+01	0.	-.4004E+01	.1604E+00	0.	.1606E+02	-.6691E+03	.1090E+01
29	.2692E+04	.2225E+02	.7090E+01	0.	-.4016E+01	.3663E+00	0.	.2962E+02	-.6731E+03	.1090E+01
30	.2710E+04	.2200E+02	.7078E+01	0.	-.4022E+01	.5532E+00	0.	.2710E+02	-.6775E+03	.1090E+01
31	.2740E+04	.2175E+02	.7070E+01	0.	-.4044E+01	.7083E+00	0.	.4247E+02	-.6850E+03	.1089E+01
32	.2790E+04	.2150E+02	.7047E+01	0.	-.4076E+01	.9059E+00	0.	.5858E+02	-.6974E+03	.1089E+01
33	.2823E+04	.2125E+02	.7028E+01	0.	-.4079E+01	.1074E+01	0.	.5222E+02	-.7057E+03	.1088E+01
34	.2882E+04	.2100E+02	.7010E+01	0.	-.4101E+01	.1226E+01	0.	.5907E+02	-.7204E+03	.1088E+01
35	.2955E+04	.2075E+02	.6987E+01	0.	-.4127E+01	.1409E+01	0.	.6649E+02	-.7388E+03	.1087E+01
36	.3026E+04	.2050E+02	.6965E+01	0.	-.4148E+01	.1576E+01	0.	.7111E+02	-.7565E+03	.1086E+01
37	.3117E+04	.2025E+02	.6940E+01	0.	-.4184E+01	.1771E+01	0.	.8105E+02	-.7793E+03	.1086E+01
38	.3248E+04	.2000E+02	.6913E+01	0.	-.4220E+01	.1997E+01	0.	.8932E+02	-.8120E+03	.1085E+01
39	.3389E+04	.1975E+02	.6885E+01	0.	-.4241E+01	.2274E+01	0.	.8980E+02	-.8472E+03	.1085E+01
40	.3539E+04	.1950E+02	.6860E+01	0.	-.4260E+01	.2601E+01	0.	.8847E+02	-.8847E+03	.1084E+01
41	.3909E+04	.1925E+02	.6835E+01	0.	-.4335E+01	.3349E+01	0.	.9771E+02	-.9771E+03	.1084E+01
42	.3988E+04	.1900E+02	.6810E+01	0.	-.3142E+01	.4369E+01	0.	.1555E+03	-.1496E+04	.1083E+01
43	.2752E+04	.1850E+02	.6757E+01	0.	-.2318E+01	.3028E+01	0.	.1445E+03	-.1376E+04	.1081E+01
44	.2649E+04	.1800E+02	.6705E+01	0.	-.2291E+01	.2856E+01	0.	.1351E+03	-.1324E+04	.1080E+01
45	.2609E+04	.1750E+02	.6655E+01	0.	-.2239E+01	.2815E+01	0.	.1109E+03	-.1305E+04	.1078E+01
46	.2494E+04	.1700E+02	.6620E+01	0.	-.2271E+01	.2581E+01	0.	.1309E+03	-.1247E+04	.1076E+01
47	.2579E+04	.1650E+02	.6550E+01	0.	-.2336E+01	.2684E+01	0.	.1612E+03	-.1289E+04	.1077E+01
48	.2089E+04	.1600E+02	.6495E+01	0.	-.2880E+01	.2124E+00	0.	.7833E+02	-.7310E+03	.1077E+01
49	.7864E+04	.1580E+02	.6475E+01	0.	-.8246E+01	-.8454E+01	0.	.8651E+02	-.8651E+03	.1076E+01
50	.3472E+05	.1578E+02	.6473E+01	0.	-.4935E+02	-.6536E+01	0.	.6944E+02	-.6944E+03	.1075E+01
51	.4597E+05	.1576E+02	.6471E+01	0.	-.6796E+02	.1290E+02	0.	.6896E+02	-.6896E+03	.1072E+01
52	.7361E+06	.1575E+02	.6470E+01	0.	.1301E+03	.1000E+04	0.	-.7361E+03	0.	.1073E+01
53	.4569E+05	.1576E+02	.6473E+01	0.	.6017E+02	.1950E+02	0.	-.2284E+03	.6853E+03	.1071E+01
54	.3678E+05	.1578E+02	.6480E+01	0.	.5023E+02	-.6694E+00	0.	-.2575E+03	.7356E+03	.1071E+01
55	.1244E+05	.1580E+02	.6487E+01	0.	.1333E+02	-.1211E+02	0.	-.4790E+03	.1369E+04	.1070E+01
56	.3646E+04	.1600E+02	.6557E+01	0.	.4846E+01	-.1182E+01	0.	-.2789E+03	.8203E+03	.1068E+01
57	.2897E+04	.1625E+02	.6640E+01	0.	.3879E+01	.3679E+00	0.	-.2390E+03	.7242E+03	.1065E+01
58	.2890E+04	.1650E+02	.6722E+01	0.	.3832E+01	.5561E+00	0.	-.2182E+03	.7225E+03	.1060E+01
59	.2956E+04	.1675E+02	.6791E+01	0.	.3959E+01	.1589E+00	0.	-.1892E+03	.7390E+03	.1055E+01

60	.2247E+04	.1700E+02	.6850E+01	0.	.2904E+01	-.9420E+00	0.	-.2123E+03	.8426E+03	.1049E+01		
61	.1491E+04	.1750E+02	.6980E+01	0.	.2000E+01	-.9806E-03	0.	-.1864E+03	.7455E+03	.1041E+01		
62	.1466E+04	.1800E+02	.7100E+01	0.	.1957E+01	.1889E+00	0.	-.1689E+03	.7342E+03	.1033E+01		
63	.1473E+04	.1850E+02	.7210E+01	0.	.1958E+01	.1902E+00	0.	-.1621E+03	.7366E+03	.1023E+01		
64	.1492E+04	.1900E+02	.7320E+01	0.	.1984E+01	.8290E-01	0.	-.1417E+03	.7460E+03	.1014E+01		
65	.1540E+04	.1950E+02	.7400E+01	0.	.2033E+01	-.1759E+00	0.	-.1463E+03	.7700E+03	.1006E+01		
66	.1235E+04	.2000E+02	.7510E+01	0.	.1474E+01	-.7283E+00	0.	-.1790E+03	.9261E+03	.9996E+00		
67	.7976E+03	.2100E+02	.7690E+01	0.	.1029E+01	-.1970E+00	0.	-.1157E+03	.7976E+03	.9956E+00		
68	.7796E+03	.2200E+02	.7800E+01	0.	.1012E+01	-.9722E-01	0.	-.9355E+02	.7796E+03	.9942E+00		
69	.7826E+03	.2300E+02	.7930E+01	0.	.1012E+01	-.1069E+00	0.	-.8608E+02	.7826E+03	.9947E+00		
70	.7986E+03	.2400E+02	.8020E+01	0.	.1021E+01	-.1968E+00	0.	-.8386E+02	.7986E+03	.9961E+00		
71	.6458E+03	.2500E+02	.8140E+01	0.	.7113E+00	-.4622E+00	0.	-.9364E+02	.9687E+03	.9974E+00		
72	.3936E+03	.2700E+02	.8310E+01	0.	.5081E+00	-.1153E+00	0.	-.5511E+02	.7872E+03	.9983E+00		
73	.3731E+03	.2900E+02	.8420E+01	0.	.5000E+00	.2121E-10	0.	-.2985E+02	.7461E+03	.9993E+00		

SECOND INDEX= 2

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9737E+00	.9807E+00	.9998E+00	-.5309E-02	.9789E+00	.1001E+01	.9977E+00	.3512E+01	-.9998E+00	.5309E-02	-.3071E-02
2	.9737E+00	.9807E+00	.9998E+00	-.5309E-02	.9789E+00	.1001E+01	.9977E+00	.3512E+01	-.9998E+00	.5309E-02	-.3071E-02
3	.9709E+00	.9786E+00	.9998E+00	-.5875E-02	.9766E+00	.1001E+01	.9975E+00	.3513E+01	-.9998E+00	.5875E-02	-.3392E-02
4	.9646E+00	.9739E+00	.9998E+00	-.7176E-02	.9715E+00	.1001E+01	.9969E+00	.3516E+01	-.9998E+00	.7176E-02	-.4128E-02
5	.9545E+00	.9663E+00	.9997E+00	-.9263E-02	.9634E+00	.1001E+01	.9962E+00	.3521E+01	-.9999E+00	.2676E-01	-.5302E-02
6	.9410E+00	.9563E+00	.9998E+00	-.1210E-01	.9526E+00	.1002E+01	.9951E+00	.3528E+01	-.1000E+01	.4959E-01	-.6879E-02
7	.9250E+00	.9446E+00	.9999E+00	-.1550E-01	.9401E+00	.1002E+01	.9940E+00	.3537E+01	-.1001E+01	.5550E-01	-.8745E-02
8	.9085E+00	.9327E+00	.1000E+01	-.1908E-01	.9276E+00	.1002E+01	.9929E+00	.3547E+01	-.1001E+01	.5909E-01	-.1067E-01
9	.8944E+00	.9228E+00	.1000E+01	-.2222E-01	.9174E+00	.1001E+01	.9921E+00	.3558E+01	-.1001E+01	.6224E-01	-.1231E-01
10	.8864E+00	.9174E+00	.1001E+01	-.2406E-01	.9124E+00	.1000E+01	.9922E+00	.3566E+01	-.1002E+01	.6285E-01	-.1325E-01
11	.8887E+00	.9195E+00	.1002E+01	-.2363E-01	.9158E+00	.9998E+00	.9936E+00	.3566E+01	-.1003E+01	.6283E-01	-.1299E-01
12	.9051E+00	.9312E+00	.1003E+01	-.2007E-01	.9301E+00	.1000E+01	.9966E+00	.3562E+01	-.1002E+01	.6040E-01	-.1107E-01
13	.9384E+00	.9541E+00	.1004E+01	-.1291E-01	.9569E+00	.1002E+01	.1001E+01	.3544E+01	-.9947E+00	.5325E-01	-.7180E-02
14	.9895E+00	.9886E+00	.1005E+01	-.2304E-02	.9963E+00	.1005E+01	.1007E+01	.3516E+01	-.1002E+01	.4217E-01	-.1229E-02
15	.1056E+01	.1033E+01	.1005E+01	.1089E-01	.1046E+01	.1009E+01	.1013E+01	.3479E+01	-.1001E+01	.1375E-01	.6550E-02
16	.1134E+01	.1086E+01	.1004E+01	.2538E-01	.1104E+01	.1011E+01	.1019E+01	.3439E+01	-.1006E+01	-.2544E-01	.1563E-01
17	.1217E+01	.1142E+01	.1002E+01	.3972E-01	.1163E+01	.1010E+01	.1023E+01	.3400E+01	-.1004E+01	-.3978E-01	.2526E-01
18	.1297E+01	.1197E+01	.9992E+00	.5270E-01	.1221E+01	.1008E+01	.1025E+01	.3365E+01	-.1005E+01	-.5303E-01	.3460E-01
19	.1367E+01	.1247E+01	.9964E+00	.6331E-01	.1271E+01	.1004E+01	.1026E+01	.3338E+01	-.1018E+01	-.6701E-01	.4275E-01
20	.1419E+01	.1285E+01	.9938E+00	.7081E-01	.1307E+01	.9990E+00	.1025E+01	.3318E+01	-.1075E+01	-.1076E+00	.4881E-01
21	.1445E+01	.1306E+01	.9918E+00	.7455E-01	.1326E+01	.9946E+00	.1023E+01	.3309E+01	-.1057E+01	-.9897E-01	.5192E-01
22	.1447E+01	.1311E+01	.9908E+00	.7492E-01	.1328E+01	.9910E+00	.1021E+01	.3310E+01	-.1129E+01	-.1574E+00	.5214E-01
23	.1432E+01	.1303E+01	.9908E+00	.7304E-01	.1319E+01	.9884E+00	.1019E+01	.3317E+01	-.1027E+01	-.7993E-01	.5033E-01
24	.1416E+01	.1294E+01	.9915E+00	.7114E-01	.1310E+01	.9868E+00	.1019E+01	.3326E+01	-.1011E+01	-.6945E-01	.4850E-01
25	.1407E+01	.1289E+01	.9922E+00	.7009E-01	.1305E+01	.9859E+00	.1019E+01	.3333E+01	-.1003E+01	-.6081E-01	.4743E-01
26	.1403E+01	.1287E+01	.9925E+00	.6976E-01	.1304E+01	.9853E+00	.1019E+01	.3335E+01	-.9976E+00	-.5796E-01	.4705E-01
27	.1403E+01	.1288E+01	.9924E+00	.6977E-01	.1304E+01	.9849E+00	.1019E+01	.3336E+01	-.9935E+00	-.5984E-01	.4704E-01
28	.1404E+01	.1289E+01	.9921E+00	.6985E-01	.1304E+01	.9845E+00	.1018E+01	.3335E+01	-.9906E+00	-.4614E-01	.4715E-01
29	.1405E+01	.1290E+01	.9919E+00	.6990E-01	.1305E+01	.9842E+00	.1018E+01	.3334E+01	-.9904E+00	-.2652E-01	.4727E-01
30	.1406E+01	.1291E+01	.9918E+00	.6992E-01	.1305E+01	.9839E+00	.1018E+01	.3334E+01	-.9884E+00	-.3076E-01	.4737E-01
31	.1407E+01	.1291E+01	.9919E+00	.6988E-01	.1306E+01	.9835E+00	.1018E+01	.3334E+01	-.9923E+00	-.8687E-02	.4741E-01
32	.1407E+01	.1292E+01	.9920E+00	.6980E-01	.1307E+01	.9829E+00	.1018E+01	.3336E+01	-.9986E+00	.1402E-01	.4741E-01
33	.1406E+01	.1292E+01	.9923E+00	.6966E-01	.1308E+01	.9822E+00	.1018E+01	.3337E+01	-.9960E+00	.3874E-02	.4740E-01
34	.1406E+01	.1293E+01	.9925E+00	.6943E-01	.1308E+01	.9814E+00	.1018E+01	.3339E+01	-.9995E+00	.1269E-01	.4733E-01
35	.1405E+01	.1293E+01	.9928E+00	.6909E-01	.1308E+01	.9809E+00	.1018E+01	.3341E+01	-.1004E+01	.2196E-01	.4722E-01
36	.1404E+01	.1292E+01	.9930E+00	.6867E-01	.1308E+01	.9805E+00	.1019E+01	.3343E+01	-.1007E+01	.2724E-01	.4708E-01
37	.1402E+01	.1291E+01	.9933E+00	.6815E-01	.1308E+01	.9803E+00	.1019E+01	.3344E+01	-.1014E+01	.3977E-01	.4689E-01
38	.1400E+01	.1290E+01	.9935E+00	.6755E-01	.1306E+01	.9803E+00	.1019E+01	.3345E+01	-.1020E+01	.4850E-01	.4667E-01
39	.1398E+01	.1288E+01	.9936E+00	.6688E-01	.1305E+01	.9805E+00	.1019E+01	.3346E+01	-.1021E+01	.4600E-01	.4638E-01
40	.1394E+01	.1285E+01	.9937E+00	.6608E-01	.1302E+01	.9810E+00	.1019E+01	.3347E+01	-.1020E+01	.4106E-01	.4598E-01
41	.1389E+01	.1281E+01	.9938E+00	.6507E-01	.1297E+01	.9817E+00	.1019E+01	.3348E+01	-.1026E+01	.4529E-01	.4536E-01
42	.1381E+01	.1275E+01	.9937E+00	.6371E-01	.1290E+01	.9829E+00	.1018E+01	.3349E+01	-.1066E+01	.8109E-01	.4440E-01
43	.1368E+01	.1264E+01	.9935E+00	.6183E-01	.1279E+01	.9848E+00	.1017E+01	.3350E+01	-.1064E+01	.8122E-01	.4288E-01
44	.1350E+01	.1250E+01	.9931E+00	.5955E-01	.1263E+01	.9876E+00	.1016E+01	.3351E+01	-.1058E+01	.7646E-01	.4087E-01
45	.1331E+01	.1235E+01	.9924E+00	.5714E-01	.1245E+01	.9907E+00	.1014E+01	.3351E+01	-.1035E+01	.4907E-01	.3858E-01
46	.1311E+01	.1219E+01	.9916E+00	.5478E-01	.1227E+01	.9936E+00	.1012E+01	.3352E+01	-.1061E+01	.8491E-01	.3625E-01
47	.1306E+01	.1209E+01	.9871E+00	.5250E-01	.1209E+01	.1002E+01	.1007E+01	.3328E+01	-.1092E+01	.1273E+00	.3570E-01
48	.1294E+01	.1197E+01	.9866E+00	.5089E-01	.1197E+01	.1006E+01	.1007E+01	.3325E+01	-.9970E+00	.5628E-01	.3432E-01

49	.1286E+01	.1191E+01	.9863E+00	.4989E-01	.1190E+01	.1007E+01	.1006E+01	.3326E+01	-.9490E+00	.6156E-01	.3337E-01
50	.1284E+01	.1191E+01	.9864E+00	.4980E-01	.1189E+01	.1005E+01	.1005E+01	.3330E+01	-.9876E+00	.5541E-01	.3307E-01
51	.1282E+01	.1192E+01	.9864E+00	.5009E-01	.1190E+01	.1002E+01	.1004E+01	.3334E+01	-.9770E+00	-.3196E-01	.3285E-01
52	.1277E+01	.1188E+01	.9860E+00	.4917E-01	.1184E+01	.1004E+01	.1004E+01	.3332E+01	.2106E+00	-.1004E+01	.3228E-01
53	.1274E+01	.1186E+01	.9865E+00	.4844E-01	.1183E+01	.1004E+01	.1004E+01	.3335E+01	.9415E+00	-.2936E+00	.3195E-01
54	.1272E+01	.1185E+01	.9867E+00	.4821E-01	.1182E+01	.1003E+01	.1004E+01	.3337E+01	.1037E+01	-.2727E+00	.3170E-01
55	.1269E+01	.1183E+01	.9869E+00	.4797E-01	.1181E+01	.1002E+01	.1004E+01	.3340E+01	.1437E+01	-.5642E+00	.3136E-01
56	.1264E+01	.1180E+01	.9874E+00	.4719E-01	.1178E+01	.1002E+01	.1004E+01	.3344E+01	.1122E+01	-.3243E+00	.3078E-01
57	.1255E+01	.1176E+01	.9881E+00	.4607E-01	.1175E+01	.1000E+01	.1004E+01	.3351E+01	.1013E-01	-.2731E+00	.2978E-01
58	.1238E+01	.1168E+01	.9914E+00	.4465E-01	.1170E+01	.9966E+00	.1007E+01	.3373E+01	.9984E+00	-.2465E+00	.2776E-01
59	.1223E+01	.1158E+01	.9928E+00	.4241E-01	.1162E+01	.9956E+00	.1007E+01	.3385E+01	.1016E+01	-.2092E+00	.2601E-01
60	.1202E+01	.1145E+01	.9949E+00	.3909E-01	.1150E+01	.9946E+00	.1008E+01	.3401E+01	.1102E+01	-.2416E+00	.2351E-01
61	.1173E+01	.1126E+01	.9974E+00	.3452E-01	.1133E+01	.9937E+00	.1009E+01	.3422E+01	.1028E+01	-.2151E+00	.2020E-01
62	.1140E+01	.1104E+01	.1000E+01	.2899E-01	.1113E+01	.9931E+00	.1011E+01	.3446E+01	.1007E+01	-.1976E+00	.1635E-01
63	.1105E+01	.1079E+01	.1003E+01	.2273E-01	.1091E+01	.9928E+00	.1012E+01	.3471E+01	.1008E+01	-.1947E+00	.1221E-01
64	.1069E+01	.1054E+01	.1006E+01	.1606E-01	.1067E+01	.9929E+00	.1012E+01	.3496E+01	.1016E+01	-.1737E+00	.8064E-02
65	.1037E+01	.1032E+01	.1008E+01	.9646E-02	.1045E+01	.9931E+00	.1013E+01	.3517E+01	.1042E+01	-.1851E+00	.4367E-02
66	.1012E+01	.1014E+01	.1008E+01	.4106E-02	.1027E+01	.9934E+00	.1012E+01	.3532E+01	.1133E+01	-.2349E+00	.1456E-02
67	.9967E+00	.1002E+01	.1008E+01	.1550E-03	.1014E+01	.9939E+00	.1010E+01	.3538E+01	.1048E+01	-.1530E+00	-.3801E-03
68	.9909E+00	.9974E+00	.1007E+01	-.1772E-02	.1007E+01	.9946E+00	.1008E+01	.3536E+01	.1026E+01	-.1246E+00	-.1062E-02
69	.9918E+00	.9974E+00	.1005E+01	-.2128E-02	.1004E+01	.9954E+00	.1006E+01	.3528E+01	.1023E+01	-.1146E+00	-.9546E-03
70	.9954E+00	.9993E+00	.1003E+01	-.1673E-02	.1004E+01	.9963E+00	.1004E+01	.3519E+01	.1030E+01	-.1110E+00	-.5330E-03
71	.9987E+00	.1001E+01	.1002E+01	-.1065E-02	.1003E+01	.9971E+00	.1002E+01	.3511E+01	.1074E+01	-.1244E+00	-.1520E-03
72	.1000E+01	.1002E+01	.1001E+01	-.7062E-03	.1003E+01	.9975E+00	.1001E+01	.3507E+01	.1020E+01	-.7384E-01	.2555E-04
73	.1000E+01	.1002E+01	.1001E+01	-.7060E-03	.1003E+01	.9975E+00	.1001E+01	.3507E+01	.1002E+01	-.4072E-01	.2556E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.9767E+02	.9000E+02	.8598E+01	0.	-.2500E+00	.4442E-10	0.	-.1943E-10	-.3907E+03	.9928E+00
2	.9767E+02	.8600E+02	.8598E+01	-.2443E-07	-.2500E+00	-.1532E-08	-.9189E-07	-.8328E-11	-.3907E+03	.9928E+00
3	.9767E+02	.8200E+02	.8598E+01	-.2622E-07	-.2500E+00	-.7284E-08	-.9824E-07	.8328E-11	-.3907E+03	.9921E+00
4	.9767E+02	.7800E+02	.8598E+01	-.2834E-07	-.2500E+00	-.2963E-07	-.1060E-06	.8328E-11	-.3907E+03	.9905E+00
5	.9767E+02	.7400E+02	.8598E+01	-.3589E-07	-.2500E+00	-.1143E-06	-.1390E-06	.6837E+01	-.3907E+03	.9878E+00
6	.9781E+02	.7000E+02	.8458E+01	-.4500E-07	-.2500E+00	-.4633E-06	-.1783E-06	.1467E+02	-.3912E+03	.9840E+00
7	.9797E+02	.6600E+02	.8298E+01	-.4849E-07	-.2500E+00	-.1980E-05	-.1908E-06	.1567E+02	-.3919E+03	.9793E+00
8	.9813E+02	.6200E+02	.8138E+01	-.4976E-07	-.2500E+00	-.8890E-05	-.1940E-06	.1570E+02	-.3925E+03	.9741E+00
9	.9831E+02	.5800E+02	.7978E+01	-.4807E-07	-.2500E+00	-.4208E-04	-.1859E-06	.1573E+02	-.3932E+03	.9693E+00
10	.9849E+02	.5400E+02	.7818E+01	-.4242E-07	-.2500E+00	-.2113E-03	-.1626E-06	.1527E+02	-.3940E+03	.9662E+00
11	.9866E+02	.5000E+02	.7668E+01	-.3392E-07	-.2500E+00	-.1126E-02	-.1290E-06	.1544E+02	-.3946E+03	.9665E+00
12	.9881E+02	.4600E+02	.7505E+01	-.2313E-07	-.2497E+00	-.6600E-02	-.8713E-07	.1591E+02	-.3952E+03	.9720E+00
13	.1145E+03	.4200E+02	.7346E+01	-.9511E-08	-.2835E+00	-.5600E-01	-.3552E-07	.1586E+02	-.4008E+03	.9835E+00
14	.1324E+03	.3900E+02	.7228E+01	.7942E-09	-.3322E+00	-.2872E-01	.2926E-08	.1575E+02	-.3971E+03	.1001E+01
15	.1653E+03	.3600E+02	.7108E+01	.6910E-08	-.3970E+00	-.1239E+00	.2622E-07	.9917E+01	-.4132E+03	.1022E+01
16	.1995E+03	.3400E+02	.7108E+01	.9585E-08	-.4999E+00	-.3954E-01	.3815E-07	.8732E-02	-.3990E+03	.1045E+01
17	.1993E+03	.3200E+02	.7108E+01	.1249E-07	-.5000E+00	-.2718E-01	.5008E-07	-.5348E-03	-.3986E+03	.1065E+01
18	.2004E+03	.3000E+02	.7108E+01	.1472E-07	-.5001E+00	-.5407E-01	.5955E-07	-.1024E-01	-.4008E+03	.1083E+01
19	.2105E+03	.2800E+02	.7108E+01	.1798E-07	-.5002E+00	-.1691E+00	.7251E-07	-.7022E-01	-.4209E+03	.1096E+01
20	.4016E+03	.2600E+02	.7109E+01	.6120E-08	-.6669E+00	-.7603E+00	.2949E-07	-.7706E-01	-.6022E+03	.1104E+01
21	.5277E+03	.2500E+02	.7108E+01	.1006E-07	-.1000E+01	-.8682E+00	.4107E-07	-.9633E-01	-.5276E+03	.1107E+01
22	.1330E+04	.2400E+02	.7109E+01	.1967E-09	-.1599E+01	-.2967E+01	.4327E-08	.1790E+00	-.8313E+03	.1104E+01
23	.1786E+04	.2375E+02	.7108E+01	.3242E-08	-.3986E+01	-.2053E+01	.1289E-07	.8625E+00	-.4475E+03	.1099E+01
24	.1653E+04	.2350E+02	.7108E+01	.2949E-08	-.3990E+01	-.1153E+01	.1180E-07	.1811E+01	-.4138E+03	.1094E+01
25	.1613E+04	.2325E+02	.7106E+01	.3199E-08	-.3990E+01	-.6873E+00	.1261E-07	.4090E+01	-.4036E+03	.1091E+01
26	.1599E+04	.2300E+02	.7103E+01	.3353E-08	-.3993E+01	-.3458E+00	.1313E-07	.4821E+01	-.4001E+03	.1090E+01
27	.1597E+04	.2275E+02	.7100E+01	.3342E-08	-.3997E+01	-.6870E-01	.1310E-07	.3996E+01	-.3993E+03	.1090E+01
28	.1600E+04	.2250E+02	.7098E+01	.3611E-08	-.4002E+01	.1611E+00	.1378E-07	.9595E+01	-.4002E+03	.1090E+01
29	.1611E+04	.2225E+02	.7088E+01	.4054E-08	-.4015E+01	.3673E+00	.1499E-07	.1771E+02	-.4029E+03	.1090E+01
30	.1623E+04	.2200E+02	.7076E+01	.3786E-08	-.4021E+01	.5593E+00	.1398E-07	.1621E+02	-.4058E+03	.1090E+01
31	.1641E+04	.2175E+02	.7068E+01	.4113E-08	-.4043E+01	.7098E+00	.1470E-07	.2540E+02	-.4103E+03	.1089E+01
32	.1668E+04	.2150E+02	.7045E+01	.4467E-08	-.4075E+01	.9074E+00	.1559E-07	.3499E+02	-.4170E+03	.1089E+01
33	.1683E+04	.2125E+02	.7026E+01	.4070E-08	-.4078E+01	.1075E+01	.1427E-07	.3111E+02	-.4209E+03	.1088E+01
34	.1701E+04	.2100E+02	.7008E+01	.4164E-08	-.4099E+01	.1228E+01	.1444E-07	.3484E+02	-.4255E+03	.1088E+01
35	.1727E+04	.2075E+02	.6985E+01	.4171E-08	-.4126E+01	.1411E+01	.1424E-07	.3882E+02	-.4318E+03	.1087E+01
36	.1751E+04	.2050E+02	.6963E+01	.4066E-08	-.4147E+01	.1578E+01	.1366E-07	.4110E+02	-.4378E+03	.1086E+01
37	.1786E+04	.2025E+02	.6938E+01	.4061E-08	-.4183E+01	.1774E+01	.1331E-07	.4639E+02	-.4467E+03	.1086E+01
38	.1821E+04	.2000E+02	6911E+01	.3999E-08	-.4218E+01	.2001E+01	.1280E-07	.5000E+02	-.4554E+03	.1085E+01

39	.1864E+04	.1975E+02	.6883E+01	.3745E-08	-.4240E+01	.2200E+01	.1174E-07	.4931E+02	-.4662E+03	.1085E+01
40	.1924E+04	.1950E+02	.6858E+01	.3515E-08	-.4258E+01	.2609E+01	.1079E-07	.4794E+02	-.4813E+03	.1085E+01
41	.2100E+04	.1925E+02	.6833E+01	.3537E-08	-.4327E+01	.3356E+01	.1064E-07	.5191E+02	-.5257E+03	.1084E+01
42	.2116E+04	.1900E+02	.6809E+01	.2482E-08	-.3136E+01	.4552E+01	.6072E-08	.8212E+02	-.7938E+03	.1083E+01
43	.1458E+04	.1850E+02	.6756E+01	.4682E-08	-.2318E+01	.3026E+01	.1238E-07	.7662E+02	-.7288E+03	.1082E+01
44	.1398E+04	.1800E+02	.6704E+01	.4526E-08	-.2291E+01	.2854E+01	.1174E-07	.7132E+02	-.6990E+03	.1080E+01
45	.1372E+04	.1750E+02	.6654E+01	.9447E-09	-.2239E+01	.2813E+01	.9341E-08	.5834E+02	-.6858E+03	.1078E+01
46	.1311E+04	.1700E+02	.6619E+01	.1367E-07	-.2271E+01	.2580E+01	.1017E-07	.6887E+02	-.6554E+03	.1075E+01
47	.1354E+04	.1650E+02	.6549E+01	-.4443E-09	-.2340E+01	.2677E+01	.9058E-07	.8510E+02	-.6762E+03	.1081E+01
48	.1104E+04	.1600E+02	.6493E+01	.1081E-07	-.2895E+01	.2360E+00	.5342E-07	.4151E+02	-.3846E+03	.1081E+01
49	.4070E+04	.1580E+02	.6473E+01	.1427E-08	-.8322E+01	-.7802E+01	.1175E-07	.4488E+02	-.4470E+03	.1080E+01
50	.1756E+05	.1578E+02	.6471E+01	.3210E-09	-.4717E+02	-.3710E+01	.2251E-08	.3947E+02	-.3691E+03	.1078E+01
51	.2397E+05	.1576E+02	.6469E+01	-.2091E-09	-.6255E+02	.1965E+02	.6044E-09	.7740E+01	-.3857E+03	.1075E+01
52	.1298E+06	.1575E+02	.6470E+01	-.2199E-09	.5497E+02	.3374E+03	-.3303E-09	-.3861E+03	-.8211E+01	.1075E+01
53	.2208E+05	.1576E+02	.6475E+01	.4960E-09	.5503E+02	.2047E+02	-.8281E-09	-.1293E+03	.3532E+03	.1075E+01
54	.1791E+05	.1578E+02	.6482E+01	-.3890E-09	.4751E+02	.5359E-01	-.5798E-08	-.1226E+03	.3769E+03	.1074E+01
55	.6155E+04	.1580E+02	.6489E+01	-.3101E-08	.1303E+02	-.1133E+02	-.3479E-07	-.2369E+03	.6785E+03	.1072E+01
56	.1853E+04	.1600E+02	.6559E+01	-.4769E-08	.4848E+01	-.1132E+01	-.7149E-07	-.1421E+03	.4155E+03	.1071E+01
57	.1466E+04	.1625E+02	.6642E+01	-.1105E-07	.3881E+01	.3774E+00	-.8156E-07	-.1210E+03	.3660E+03	.1067E+01
58	.1455E+04	.1650E+02	.6724E+01	.6441E-08	.3830E+01	.5590E+00	.5123E-08	-.1098E+03	.3638E+03	.1060E+01
59	.1486E+04	.1675E+02	.6793E+01	.3748E-09	.3951E+01	.1625E+00	.9233E-08	-.9507E+02	.3722E+03	.1056E+01
60	.1130E+04	.1700E+02	.6852E+01	.2307E-08	.2900E+01	-.9269E+00	.1229E-07	-.1068E+03	.4238E+03	.1050E+01
61	.7515E+03	.1750E+02	.6982E+01	.3412E-08	.2001E+01	.1508E-02	.1637E-07	-.9396E+02	.3754E+03	.1042E+01
62	.7385E+03	.1800E+02	.7102E+01	.4044E-08	.1957E+01	.1897E+00	.1765E-07	-.8492E+02	.3692E+03	.1033E+01
63	.7382E+03	.1850E+02	.7212E+01	.3817E-08	.1958E+01	.1906E+00	.1664E-07	-.8120E+02	.3691E+03	.1024E+01
64	.7438E+03	.1900E+02	.7322E+01	.4110E-08	.1983E+01	.8304E-01	.1681E-07	-.7066E+02	.3720E+03	.1014E+01
65	.7622E+03	.1950E+02	.7402E+01	.3130E-08	.2031E+01	-.1753E+00	.1400E-07	-.7234E+02	.3815E+03	.1006E+01
66	.6062E+03	.2000E+02	.7512E+01	.3340E-08	.1473E+01	-.7240E+00	.1689E-07	-.8789E+02	.4547E+03	.9988E+00
67	.3892E+03	.2100E+02	.7692E+01	.3771E-08	.1029E+01	-.1963E+00	.2061E-07	-.5647E+02	.3891E+03	.9947E+00
68	.3769E+03	.2200E+02	.7802E+01	.2258E-08	.1012E+01	-.9702E-01	.1695E-07	-.4523E+02	.3769E+03	.9935E+00
69	.3768E+03	.2300E+02	.7932E+01	.1439E-08	.1012E+01	-.1068E+00	.1542E-07	-.4144E+02	.3768E+03	.9944E+00
70	.3850E+03	.2400E+02	.8022E+01	.1450E-08	.1020E+01	-.1968E+00	.1585E-07	-.4037E+02	.3852E+03	.9961E+00
71	.3134E+03	.2500E+02	.8142E+01	.2442E-08	.7112E+00	-.4607E+00	.2232E-07	-.4544E+02	.4701E+03	.9976E+00
72	.1946E+03	.2700E+02	.8312E+01	.1113E-08	.5082E+00	-.1151E+00	.2684E-07	-.2728E+02	.3892E+03	.9983E+00
73	.1880E+03	.2900E+02	.8422E+01	0.	.5001E+00	.3206E-10	0.	-.1503E+02	.3760E+03	.9983E+00

SECOND INDEX= 3

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9738E+00	.9808E+00	.9998E+00	-.5286E-02	.9790E+00	.1001E+01	.9977E+00	.3512E+01	-.9998E+00	.5286E-02	-.3057E-02
2	.9738E+00	.9808E+00	.9998E+00	-.5287E-02	.9790E+00	.1001E+01	.9977E+00	.3512E+01	-.9998E+00	.5287E-02	-.3058E-02
3	.9710E+00	.9787E+00	.9998E+00	-.5861E-02	.9767E+00	.1001E+01	.9975E+00	.3513E+01	-.9998E+00	.5861E-02	-.3383E-02
4	.9647E+00	.9740E+00	.9998E+00	-.7159E-02	.9715E+00	.1001E+01	.9969E+00	.3516E+01	-.9998E+00	.7159E-02	-.4117E-02
5	.9546E+00	.9664E+00	.9997E+00	-.9243E-02	.9634E+00	.1001E+01	.9962E+00	.3521E+01	-.9999E+00	.2674E-01	-.5289E-02
6	.9411E+00	.9564E+00	.9998E+00	-.1208E-01	.9527E+00	.1002E+01	.9951E+00	.3528E+01	-.1000E+01	.4957E-01	-.6866E-02
7	.9251E+00	.9447E+00	.9999E+00	-.1548E-01	.9402E+00	.1002E+01	.9940E+00	.3537E+01	-.1001E+01	.5547E-01	-.8732E-02
8	.9086E+00	.9327E+00	.1000E+01	-.1906E-01	.9277E+00	.1002E+01	.9928E+00	.3547E+01	-.1001E+01	.5906E-01	-.1066E-01
9	.8944E+00	.9228E+00	.1000E+01	-.2221E-01	.9174E+00	.1001E+01	.9921E+00	.3558E+01	-.1001E+01	.6222E-01	-.1231E-01
10	.8864E+00	.9175E+00	.1001E+01	-.2406E-01	.9125E+00	.1000E+01	.9922E+00	.3566E+01	-.1002E+01	.6285E-01	-.1325E-01
11	.8885E+00	.9194E+00	.1002E+01	-.2366E-01	.9157E+00	.9995E+00	.9936E+00	.3569E+01	-.1003E+01	.6286E-01	-.1300E-01
12	.9048E+00	.9310E+00	.1003E+01	-.2013E-01	.9299E+00	.1000E+01	.9966E+00	.3562E+01	-.1002E+01	.6046E-01	-.1111E-01
13	.9380E+00	.9538E+00	.1004E+01	-.1300E-01	.9566E+00	.1002E+01	.1001E+01	.3545E+01	-.9947E+00	.5333E-01	-.7231E-02
14	.9889E+00	.9881E+00	.1005E+01	-.2413E-02	.9958E+00	.1006E+01	.1007E+01	.3516E+01	-.1002E+01	.4227E-01	-.1296E-02
15	.1059E+01	.1033E+01	.1005E+01	.1076E-01	.1046E+01	.1009E+01	.1013E+01	.3479E+01	-.1001E+01	.1388E-01	.6470E-02
16	.1133E+01	.1085E+01	.1004E+01	.2525E-01	.1103E+01	.1011E+01	.1019E+01	.3439E+01	-.1006E+01	-.2528E-01	.1555E-01
17	.1216E+01	.1141E+01	.1002E+01	.3960E-01	.1163E+01	.1010E+01	.1023E+01	.3400E+01	-.1004E+01	-.3967E-01	.2517E-01
18	.1296E+01	.1197E+01	.9993E+00	.5260E-01	.1220E+01	.1008E+01	.1025E+01	.3366E+01	-.1005E+01	-.5297E-01	.3453E-01
19	.1366E+01	.1246E+01	.9964E+00	.6324E-01	.1270E+01	.1004E+01	.1026E+01	.3338E+01	-.1018E+01	-.6720E-01	.4270E-01
20	.1418E+01	.1284E+01	.9938E+00	.7075E-01	.1307E+01	.9991E+00	.1025E+01	.3318E+01	-.1075E+01	-.1077E+00	.4877E-01
21	.1445E+01	.1306E+01	.9918E+00	.7454E-01	.1326E+01	.9948E+00	.1023E+01	.3309E+01	-.1057E+01	-.9927E-01	.5191E-01
22	.1447E+01	.1310E+01	.9908E+00	.7491E-01	.1328E+01	.9912E+00	.1021E+01	.3309E+01	-.1128E+01	-.1560E+00	.5212E-01
23	.1432E+01	.1303E+01	.9909E+00	.7306E-01	.1319E+01	.9885E+00	.1020E+01	.3317E+01	-.1026E+01	-.7667E-01	.5036E-01
24	.1416E+01	.1294E+01	.9916E+00	.7116E-01	.1310E+01	.9869E+00	.1019E+01	.3326E+01	-.1011E+01	-.6887E-01	.4851E-01
25	.1407E+01	.1289E+01	.9923E+00	.7009E-01	.1305E+01	.9860E+00	.1019E+01	.3333E+01	-.1003E+01	-.6064E-01	.4743E-01
26	.1403E+01	.1287E+01	.9926E+00	.6976E-01	.1304E+01	.9853E+00	.1019E+01	.3336E+01	-.9977E+00	-.5790E-01	.4704E-01
27	.1403E+01	.1288E+01	.9925E+00	.6976E-01	.1304E+01	.9848E+00	.1019E+01	.3336E+01	-.9936E+00	-.5983E-01	.4702E-01

28	.1404E+01	.1289E+01	.9922E+00	.6982E-01	.1304E+01	.9843E+00	.1018E+01	.3335E+01	-.9907E+00	-.4617E-01	.4713E-01
29	.1405E+01	.1290E+01	.9920E+00	.6988E-01	.1305E+01	.9839E+00	.1018E+01	.3335E+01	-.9905E+00	-.2658E-01	.4725E-01
30	.1406E+01	.1291E+01	.9919E+00	.6989E-01	.1305E+01	.9836E+00	.1018E+01	.3335E+01	-.9884E+00	-.3083E-01	.4735E-01
31	.1406E+01	.1291E+01	.9919E+00	.6986E-01	.1306E+01	.9833E+00	.1018E+01	.3335E+01	-.9923E+00	-.8777E-02	.4739E-01
32	.1406E+01	.1292E+01	.9921E+00	.6979E-01	.1307E+01	.9827E+00	.1018E+01	.3336E+01	-.9986E+00	.1390E-01	.4740E-01
33	.1406E+01	.1292E+01	.9923E+00	.6965E-01	.1308E+01	.9820E+00	.1018E+01	.3338E+01	-.9960E+00	.3790E-02	.4739E-01
34	.1406E+01	.1293E+01	.9926E+00	.6942E-01	.1308E+01	.9813E+00	.1018E+01	.3339E+01	-.9995E+00	.1261E-01	.4733E-01
35	.1405E+01	.1293E+01	.9928E+00	.6909E-01	.1308E+01	.9808E+00	.1018E+01	.3341E+01	-.1004E+01	.2185E-01	.4722E-01
36	.1404E+01	.1292E+01	.9930E+00	.6866E-01	.1308E+01	.9805E+00	.1019E+01	.3343E+01	-.1007E+01	.2711E-01	.4708E-01
37	.1402E+01	.1291E+01	.9933E+00	.6815E-01	.1308E+01	.9803E+00	.1019E+01	.3344E+01	-.1014E+01	.3962E-01	.4690E-01
38	.1400E+01	.1290E+01	.9935E+00	.6756E-01	.1307E+01	.9803E+00	.1019E+01	.3345E+01	-.1020E+01	.4831E-01	.4668E-01
39	.1398E+01	.1288E+01	.9936E+00	.6688E-01	.1305E+01	.9805E+00	.1019E+01	.3346E+01	-.1021E+01	.4567E-01	.4639E-01
40	.1394E+01	.1286E+01	.9937E+00	.6609E-01	.1302E+01	.9810E+00	.1019E+01	.3347E+01	-.1020E+01	.4035E-01	.4599E-01
41	.1389E+01	.1281E+01	.9937E+00	.6508E-01	.1297E+01	.9818E+00	.1019E+01	.3348E+01	-.1025E+01	.4259E-01	.4538E-01
42	.1381E+01	.1275E+01	.9937E+00	.6369E-01	.1290E+01	.9830E+00	.1018E+01	.3348E+01	-.1064E+01	.7917E-01	.4438E-01
43	.1368E+01	.1264E+01	.9935E+00	.6182E-01	.1279E+01	.9850E+00	.1017E+01	.3350E+01	-.1064E+01	.8161E-01	.4286E-01
44	.1350E+01	.1250E+01	.9930E+00	.5954E-01	.1263E+01	.9878E+00	.1016E+01	.3350E+01	-.1058E+01	.7656E-01	.4086E-01
45	.1331E+01	.1234E+01	.9923E+00	.5713E-01	.1245E+01	.9909E+00	.1014E+01	.3351E+01	-.1035E+01	.4928E-01	.3857E-01
46	.1311E+01	.1219E+01	.9915E+00	.5480E-01	.1226E+01	.9938E+00	.1012E+01	.3351E+01	-.1061E+01	.8508E-01	.3625E-01
47	.1306E+01	.1208E+01	.9871E+00	.5253E-01	.1209E+01	.1002E+01	.1007E+01	.3328E+01	-.1093E+01	.1296E+00	.3571E-01
48	.1294E+01	.1197E+01	.9864E+00	.5096E-01	.1197E+01	.1006E+01	.1006E+01	.3325E+01	-.9975E+00	.5761E-01	.3433E-01
49	.1286E+01	.1191E+01	.9863E+00	.4991E-01	.1189E+01	.1007E+01	.1006E+01	.3326E+01	-.9512E+00	.6059E-01	.3333E-01
50	.1283E+01	.1190E+01	.9863E+00	.4964E-01	.1189E+01	.1005E+01	.1005E+01	.3330E+01	-.9903E+00	.6139E-01	.3298E-01
51	.1281E+01	.1191E+01	.9864E+00	.4984E-01	.1189E+01	.1003E+01	.1004E+01	.3334E+01	-.9332E+00	-.1455E+00	.3279E-01
52	.1278E+01	.1188E+01	.9864E+00	.4907E-01	.1186E+01	.1004E+01	.1004E+01	.3333E+01	.2523E+00	-.1011E+01	.3243E-01
53	.1276E+01	.1187E+01	.9865E+00	.4872E-01	.1185E+01	.1004E+01	.1004E+01	.3335E+01	.9313E+00	-.3298E+00	.3216E-01
54	.1274E+01	.1186E+01	.9867E+00	.4850E-01	.1184E+01	.1003E+01	.1004E+01	.3336E+01	.1025E+01	-.2378E+00	.3191E-01
55	.1271E+01	.1185E+01	.9868E+00	.4825E-01	.1182E+01	.1002E+01	.1004E+01	.3339E+01	.1416E+01	-.5443E+00	.3157E-01
56	.1266E+01	.1182E+01	.9873E+00	.4750E-01	.1180E+01	.1002E+01	.1004E+01	.3343E+01	.1121E+01	-.3266E+00	.3100E-01
57	.1257E+01	.1178E+01	.9881E+00	.4638E-01	.1176E+01	.9999E+00	.1004E+01	.3351E+01	.1013E+01	-.2735E+00	.2999E-01
58	.1240E+01	.1169E+01	.9913E+00	.4488E-01	.1171E+01	.9965E+00	.1007E+01	.3372E+01	.9982E+00	-.2462E+00	.2793E-01
59	.1224E+01	.1159E+01	.9928E+00	.4254E-01	.1162E+01	.9950E+00	.1007E+01	.3384E+01	.1015E+01	-.2081E+00	.2611E-01
60	.1202E+01	.1145E+01	.9948E+00	.3920E-01	.1150E+01	.9945E+00	.1008E+01	.3401E+01	.1101E+01	-.2409E+00	.2360E-01
61	.1174E+01	.1127E+01	.9974E+00	.3464E-01	.1134E+01	.9936E+00	.1009E+01	.3422E+01	.1028E+01	-.2153E+00	.2030E-01
62	.1141E+01	.1104E+01	.1000E+01	.2916E-01	.1114E+01	.9931E+00	.1011E+01	.3445E+01	.1007E+01	-.1975E+00	.1648E-01
63	.1106E+01	.1080E+01	.1003E+01	.2294E-01	.1092E+01	.9928E+00	.1012E+01	.3470E+01	.1008E+01	-.1945E+00	.1236E-01
64	.1071E+01	.1055E+01	.1006E+01	.1629E-01	.1068E+01	.9929E+00	.1012E+01	.3495E+01	.1016E+01	-.1734E+00	.8227E-02
65	.1039E+01	.1033E+01	.1008E+01	.9851E-02	.1046E+01	.9931E+00	.1013E+01	.3516E+01	.1042E+01	-.1843E+00	.4508E-02
66	.1013E+01	.1014E+01	.1008E+01	.4256E-02	.1027E+01	.9934E+00	.1012E+01	.3531E+01	.1132E+01	-.2344E+00	.1561E-02
67	.9973E+00	.1002E+01	.1008E+01	.2421E-03	.1014E+01	.9939E+00	.1010E+01	.3537E+01	.1048E+01	-.1532E+00	-.3178E-03
68	.9911E+00	.9975E+00	.1007E+01	-.1746E-02	.1007E+01	.9946E+00	.1008E+01	.3535E+01	.1026E+01	-.1246E+00	-.1039E-02
69	.9918E+00	.9974E+00	.1005E+01	-.2139E-02	.1004E+01	.9954E+00	.1006E+01	.3528E+01	.1023E+01	-.1146E+00	-.9573E-03
70	.9953E+00	.9993E+00	.1003E+01	-.1695E-02	.1003E+01	.9964E+00	.1004E+01	.3518E+01	.1030E+01	-.1107E+00	-.5450E-03
71	.9986E+00	.1001E+01	.1002E+01	-.1081E-02	.1003E+01	.9971E+00	.1002E+01	.3511E+01	.1074E+01	-.1243E+00	-.1633E-03
72	.1000E+01	.1002E+01	.1001E+01	-.7123E-03	.1003E+01	.9975E+00	.1001E+01	.3507E+01	.1020E+01	-.7400E-01	.1970E-04
73	.1000E+01	.1002E+01	.1001E+01	-.7121E-03	.1003E+01	.9975E+00	.1001E+01	.3507E+01	.1002E+01	-.4067E-01	.1980E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.6264E+02	.9000E+02	.8595E+01	0.	-.2500E+00	0.	0.	-.1068E-10	-.2506E+03	.9928E+00
2	.6264E+02	.8600E+02	.8595E+01	-.3617E-07	-.2500E+00	-.1610E-08	-.1201E-06	-.3561E-11	-.2506E+03	.9928E+00
3	.6264E+02	.8200E+02	.8595E+01	-.2961E-07	-.2500E+00	-.7464E-08	-.9709E-07	-.1780E-11	-.2506E+03	.9921E+00
4	.6264E+02	.7800E+02	.8595E+01	-.3262E-07	-.2500E+00	-.2971E-07	-.1078E-06	0.	-.2506E+03	.9905E+00
5	.6264E+02	.7400E+02	.8595E+01	-.3665E-07	-.2500E+00	-.1144E-06	-.1221E-06	.4385E+01	-.2506E+03	.9878E+00
6	.6287E+02	.7000E+02	.8455E+01	-.4057E-07	-.2500E+00	-.4634E-06	-.1358E-06	.9430E+01	-.2515E+03	.9840E+00
7	.6314E+02	.6600E+02	.8295E+01	-.4340E-07	-.2500E+00	-.1980E-05	-.1453E-06	.1010E+02	-.2526E+03	.9793E+00
8	.6343E+02	.6200E+02	.8135E+01	-.4408E-07	-.2500E+00	-.8890E-05	-.1468E-06	.1015E+02	-.2537E+03	.9741E+00
9	.6373E+02	.5800E+02	.7975E+01	-.4185E-07	-.2500E+00	-.4208E-04	-.1375E-06	.1020E+02	-.2549E+03	.9693E+00
10	.6404E+02	.5400E+02	.7815E+01	-.3647E-07	-.2500E+00	-.2113E-03	-.1165E-06	.9925E+01	-.2562E+03	.9661E+00
11	.6435E+02	.5000E+02	.7665E+01	-.2829E-07	-.2500E+00	-.1126E-02	-.8545E-07	.1007E+02	-.2574E+03	.9664E+00
12	.6467E+02	.4600E+02	.7502E+01	-.1815E-07	-.2498E+00	-.6599E-02	-.4754E-07	.1041E+02	-.2587E+03	.9719E+00
13	.7517E+02	.4200E+02	.7343E+01	-.6123E-08	-.2835E+00	-.5592E-01	-.6112E-08	.1041E+02	-.2631E+03	.9835E+00
14	.8717E+02	.3900E+02	.7225E+01	.2921E-08	-.3322E+00	-.2872E-01	.2398E-07	.1037E+02	-.2615E+03	.1001E+01
15	.1091E+03	.3600E+02	.7105E+01	.8460E-08	-.3970E+00	-.1237E+00	.4034E-07	.6543E+01	-.2726E+03	.1022E+01
16	.1318E+03	.3400E+02	.7105E+01	.1142E-07	-.4998E+00	-.3953E-01	.4820E-07	.1402E+01	-.2636E+03	.1044E+01
17	.1318E+03	.3200E+02	.7105E+01	.1498E-07	-.5000E+00	-.2718E-01	.5986E-07	-.1457E-02	-.2637E+03	.1065E+01

18	.1328E+03	.3000E+02	.7105E+01	.1761E-07	-.5002E+00	-.5405E-01	.6821E-07	-.1762E-01	-.2655E+03	.1083E+01
19	.1398E+03	.2800E+02	.7105E+01	.1874E-07	-.5005E+00	-.1689E+00	.7134E-07	-.1166E+00	-.2793E+03	.1096E+01
20	.2654E+03	.2600E+02	.7107E+01	.1100E-07	-.6673E+00	-.7587E+00	.4143E-07	-.1274E+00	-.3979E+03	.1104E+01
21	.3498E+03	.2500E+02	.7106E+01	.9165E-08	-.1001E+01	-.8672E+00	.3435E-07	-.1604E+00	-.3497E+03	.1107E+01
22	.8764E+03	.2400E+02	.7108E+01	.4248E-08	-.1597E+01	-.2949E+00	.1584E-07	.2949E+00	-.5482E+03	.1104E+01
23	.1179E+04	.2375E+02	.7106E+01	.3484E-08	-.3966E+01	-.2048E+01	.1299E-07	.1428E+01	-.2965E+03	.1099E+01
24	.1092E+04	.2350E+02	.7105E+01	.3986E-08	-.3983E+01	-.1154E+01	.1483E-07	.1356E+01	-.2739E+03	.1094E+01
25	.1068E+04	.2325E+02	.7103E+01	.4234E-08	-.3985E+01	-.6875E+00	.1577E-07	.2758E+01	-.2674E+03	.1091E+01
26	.1061E+04	.2300E+02	.7100E+01	.4396E-08	-.3990E+01	-.3456E+00	.1640E-07	.3216E+01	-.2657E+03	.1090E+01
27	.1061E+04	.2275E+02	.7097E+01	.4571E-08	-.3994E+01	-.6833E-01	.1706E-07	.2657E+01	-.2656E+03	.1090E+01
28	.1064E+04	.2250E+02	.7095E+01	.4742E-08	-.4000E+01	.1617E+00	.1767E-07	.6374E+01	-.2664E+03	.1089E+01
29	.1072E+04	.2225E+02	.7085E+01	.4854E-08	-.4012E+01	.3680E+00	.1802E-07	.1177E+02	-.2683E+03	.1089E+01
30	.1080E+04	.2200E+02	.7073E+01	.4905E-08	-.4019E+01	.5600E+00	.1812E-07	.1077E+02	-.2703E+03	.1089E+01
31	.1092E+04	.2175E+02	.7065E+01	.4882E-08	-.4041E+01	.7109E+00	.1796E-07	.1689E+02	-.2733E+03	.1089E+01
32	.1109E+04	.2150E+02	.7042E+01	.4802E-08	-.4073E+01	.9083E+00	.1761E-07	.2325E+02	-.2775E+03	.1089E+01
33	.1118E+04	.2125E+02	.7023E+01	.4741E-08	-.4077E+01	.1076E+01	.1735E-07	.2064E+02	-.2797E+03	.1088E+01
34	.1123E+04	.2100E+02	.7005E+01	.4680E-08	-.4098E+01	.1229E+01	.1707E-07	.2299E+02	-.2810E+03	.1087E+01
35	.1133E+04	.2075E+02	.6982E+01	.4590E-08	-.4124E+01	.1412E+01	.1664E-07	.2544E+02	-.2834E+03	.1087E+01
36	.1141E+04	.2050E+02	.6960E+01	.4490E-08	-.4145E+01	.1580E+01	.1611E-07	.2677E+02	-.2855E+03	.1086E+01
37	.1158E+04	.2025E+02	.6935E+01	.4343E-08	-.4181E+01	.1776E+01	.1538E-07	.3005E+02	-.2897E+03	.1086E+01
38	.1165E+04	.2000E+02	.6908E+01	.4211E-08	-.4216E+01	.2004E+01	.1468E-07	.3195E+02	-.2915E+03	.1085E+01
39	.1179E+04	.1975E+02	.6880E+01	.4039E-08	-.4237E+01	.2283E+01	.1382E-07	.3113E+02	-.2951E+03	.1085E+01
40	.1209E+04	.1950E+02	.6856E+01	.3831E-08	-.4253E+01	.2614E+01	.1283E-07	.2997E+02	-.3027E+03	.1085E+01
41	.1309E+04	.1925E+02	.6831E+01	.3391E-08	-.4312E+01	.3355E+01	.1110E-07	.3177E+02	-.3283E+03	.1084E+01
42	.1309E+04	.1900E+02	.6807E+01	.3337E-08	-.3129E+01	.4534E+01	.1065E-07	.5044E+02	-.4915E+03	.1083E+01
43	.9030E+03	.1850E+02	.6754E+01	.4729E-08	-.2319E+01	.3025E+01	.1464E-07	.4755E+02	-.4514E+03	.1082E+01
44	.8641E+03	.1800E+02	.6702E+01	.4654E-08	-.2291E+01	.2854E+01	.1397E-07	.4411E+02	-.4320E+03	.1080E+01
45	.8459E+03	.1750E+02	.6652E+01	.6974E-10	-.2240E+01	.2812E+01	.1298E-07	.3603E+02	-.4229E+03	.1078E+01
46	.8085E+03	.1700E+02	.6617E+01	.1954E-07	-.2272E+01	.2579E+01	.9097E-08	.4252E+02	-.4042E+03	.1076E+01
47	.8363E+03	.1650E+02	.6547E+01	-.8793E-08	-.2348E+01	.2678E+01	-.1014E-08	.5302E+02	-.4167E+03	.1081E+01
48	.6860E+03	.1600E+02	.6490E+01	.1285E-07	-.2917E+01	.2553E+00	.4601E-08	.2594E+02	-.2374E+03	.1081E+01
49	.2484E+04	.1580E+02	.6471E+01	.1889E-08	-.8387E+01	-.7318E+01	.2173E-08	.2748E+02	-.2722E+03	.1080E+01
50	.1011E+05	.1578E+02	.6468E+01	.4743E-09	-.4380E+02	-.1595E+01	.7026E-09	.2593E+02	-.2299E+03	.1078E+01
51	.1363E+05	.1576E+02	.6466E+01	.2511E-10	-.5407E+02	.2301E+02	.4893E-09	-.2195E+02	-.2427E+03	.1075E+01
52	.3908E+05	.1574E+02	.6471E+01	-.1199E-09	.3374E+02	.1645E+03	.1070E-08	-.2384E+03	-.4178E+01	.1076E+01
53	.1214E+05	.1576E+02	.6478E+01	.8424E-09	.4804E+02	.1995E+02	.2838E-08	-.8772E+02	.2135E+03	.1075E+01
54	.1007E+05	.1578E+02	.6485E+01	.4902E-09	.4377E+02	.5342E+00	.7407E-09	-.6668E+02	.2292E+03	.1074E+01
55	.3638E+04	.1580E+02	.6491E+01	.1074E-08	.1277E+02	-.1073E+02	.1477E-08	-.1399E+03	.4024E+03	.1073E+01
56	.1126E+04	.1600E+02	.6562E+01	.5399E-08	.4866E+01	-.1098E+01	.4423E-08	-.8673E+02	.2510E+03	.1071E+01
57	.8869E+03	.1625E+02	.6645E+01	-.2974E-08	.3888E+01	.3851E+00	.1897E-08	-.7319E+02	.2208E+03	.1068E+01
58	.8758E+03	.1650E+02	.6727E+01	.1202E-07	.3828E+01	.5611E+00	.7735E-08	-.6614E+02	.2191E+03	.1061E+01
59	.8925E+03	.1675E+02	.6796E+01	.1617E-08	.3939E+01	.1650E+00	.1231E-07	-.5706E+02	.2242E+03	.1056E+01
60	.6798E+03	.1700E+02	.6855E+01	.5907E-08	.2897E+01	-.9154E+00	.1783E-07	-.6425E+02	.2550E+03	.1050E+01
61	.4533E+03	.1750E+02	.6985E+01	.9369E-08	.2003E+01	.3398E-02	.2863E-07	-.5670E+02	.2261E+03	.1042E+01
62	.4446E+03	.1800E+02	.7105E+01	.9669E-08	.1957E+01	.1904E+00	.3013E-07	-.5112E+02	.2222E+03	.1033E+01
63	.4434E+03	.1850E+02	.7215E+01	.9241E-08	.1957E+01	.1908E+00	.2949E-07	-.4878E+02	.2218E+03	.1024E+01
64	.4454E+03	.1900E+02	.7325E+01	.8108E-08	.1982E+01	.8312E-01	.2673E-07	-.4232E+02	.2229E+03	.1014E+01
65	.4544E+03	.1950E+02	.7405E+01	.6238E-08	.2028E+01	-.1747E+00	.2167E-07	-.4306E+02	.2278E+03	.1006E+01
66	.3601E+03	.2000E+02	.7515E+01	.5064E-08	.1472E+01	-.7266E+00	.1949E-07	-.5220E+02	.2702E+03	.9991E+00
67	.2307E+03	.2100E+02	.7695E+01	.3624E-08	.1029E+01	-.1958E+00	.1818E-07	-.3351E+02	.2305E+03	.9949E+00
68	.2222E+03	.2200E+02	.7805E+01	.5329E-09	.1012E+01	-.9688E-01	.9531E-08	-.2667E+02	.2222E+03	.9936E+00
69	.2216E+03	.2300E+02	.7935E+01	-.1033E-08	.1011E+01	-.1068E+00	.4932E-08	-.2437E+02	.2217E+03	.9944E+00
70	.2265E+03	.2400E+02	.8025E+01	-.1144E-08	.1019E+01	-.1967E+00	.4281E-08	-.2369E+02	.2268E+03	.9961E+00
71	.1851E+03	.2500E+02	.8145E+01	-.6595E-09	.7110E+00	-.4596E+00	.7145E-08	-.2683E+02	.2776E+03	.9975E+00
72	.1161E+03	.2700E+02	.8315E+01	-.2991E-08	.5084E+00	-.1150E+00	.1693E-07	-.1631E+02	.2321E+03	.9983E+00
73	.1133E+03	.2900E+02	.8425E+01	0.	.5002E+00	.2577E-10	0.	-.9044E+01	.2265E+03	.9983E+00

SECOND INDEX= 4

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9736E+00	.9808E+00	.9998E+00	-.5330E-02	.9789E+00	.1000E+01	.9977E+00	.3512E+01	-.9998E+00	.5330E-02	-.3082E-02
2	.9736E+00	.9808E+00	.9998E+00	-.5331E-02	.9789E+00	.1000E+01	.9977E+00	.3512E+01	-.9998E+00	.5331E-02	-.3082E-02
3	.9708E+00	.9787E+00	.9998E+00	-.5902E-02	.9766E+00	.1001E+01	.9974E+00	.3514E+01	-.9998E+00	.5902E-02	-.3406E-02
4	.9645E+00	.9739E+00	.9998E+00	-.7202E-02	.9714E+00	.1001E+01	.9969E+00	.3516E+01	-.9998E+00	.7202E-02	-.4141E-02
5	.9544E+00	.9663E+00	.9997E+00	-.9288E-02	.9633E+00	.1001E+01	.9961E+00	.3521E+01	-.9999E+00	.2678E-01	-.5314E-02
6	.9409E+00	.9562E+00	.9997E+00	-.1213E-01	.9525E+00	.1002E+01	.9951E+00	.3528E+01	-.1000E+01	.4961E-01	-.6892E-02

7	.9249E+00	.9445E+00	.9998E+00	-.1553E-01	.9400E+00	.1002E+01	.9939E+00	.3537E+01	-.1001E+01	.5552E-01	-.8760E-02
8	.9083E+00	.9326E+00	.1000E+01	-.1912E-01	.9274E+00	.1002E+01	.9928E+00	.3547E+01	-.1001E+01	.5912E-01	-.1069E-01
9	.8942E+00	.9226E+00	.1000E+01	-.2228E-01	.9172E+00	.1001E+01	.9921E+00	.3558E+01	-.1001E+01	.6228E-01	-.1234E-01
10	.8860E+00	.9173E+00	.1001E+01	-.2414E-01	.9123E+00	.9999E+00	.9922E+00	.3566E+01	-.1002E+01	.6292E-01	-.1329E-01
11	.8882E+00	.9191E+00	.1002E+01	-.2374E-01	.9155E+00	.9994E+00	.9936E+00	.3569E+01	-.1003E+01	.6293E-01	-.1304E-01
12	.9044E+00	.9307E+00	.1003E+01	-.2022E-01	.9297E+00	.1000E+01	.9967E+00	.3563E+01	-.1002E+01	.6053E-01	-.1115E-01
13	.9376E+00	.9534E+00	.1004E+01	-.1308E-01	.9563E+00	.1002E+01	.1001E+01	.3545E+01	-.9948E+00	.5341E-01	-.7278E-02
14	.9885E+00	.9876E+00	.1005E+01	-.2494E-02	.9955E+00	.1006E+01	.1007E+01	.3516E+01	-.1002E+01	.4233E-01	-.1343E-02
15	.1055E+01	.1032E+01	.1005E+01	.1070E-01	.1045E+01	.1009E+01	.1014E+01	.3479E+01	-.1001E+01	.1395E-01	.6427E-02
16	.1133E+01	.1085E+01	.1004E+01	.2520E-01	.1103E+01	.1011E+01	.1019E+01	.3439E+01	-.1006E+01	-.2518E-01	.1551E-01
17	.1216E+01	.1141E+01	.1002E+01	.3957E-01	.1163E+01	.1011E+01	.1023E+01	.3400E+01	-.1004E+01	-.3964E-01	.2515E-01
18	.1296E+01	.1197E+01	.9993E+00	.5258E-01	.1220E+01	.1008E+01	.1025E+01	.3366E+01	-.1005E+01	-.5302E-01	.3451E-01
19	.1366E+01	.1246E+01	.9964E+00	.6375E-01	.1270E+01	.1004E+01	.1026E+01	.3338E+01	-.1018E+01	-.6759E-01	.4270E-01
20	.1418E+01	.1284E+01	.9938E+00	.7080E-01	.1307E+01	.9992E+00	.1025E+01	.3318E+01	-.1075E+01	-.1079E+00	.4880E-01
21	.1445E+01	.1306E+01	.9918E+00	.7460E-01	.1326E+01	.9949E+00	.1023E+01	.3309E+01	-.1057E+01	-.9983E-01	.5195E-01
22	.1448E+01	.1311E+01	.9908E+00	.7501E-01	.1329E+01	.9913E+00	.1021E+01	.3309E+01	-.1126E+01	-.1542E+00	.5219E-01
23	.1432E+01	.1303E+01	.9909E+00	.7316E-01	.1319E+01	.9887E+00	.1020E+01	.3317E+01	-.1024E+01	-.7189E-01	.5042E-01
24	.1417E+01	.1294E+01	.9916E+00	.7126E-01	.1310E+01	.9871E+00	.1019E+01	.3326E+01	-.1011E+01	-.6808E-01	.4859E-01
25	.1407E+01	.1289E+01	.9924E+00	.7020E-01	.1306E+01	.9861E+00	.1019E+01	.3333E+01	-.1003E+01	-.6050E-01	.4751E-01
26	.1404E+01	.1288E+01	.9927E+00	.6985E-01	.1304E+01	.9854E+00	.1019E+01	.3336E+01	-.9978E+00	-.5795E-01	.4711E-01
27	.1404E+01	.1288E+01	.9926E+00	.6985E-01	.1305E+01	.9847E+00	.1019E+01	.3336E+01	-.9937E+00	-.5994E-01	.4709E-01
28	.1405E+01	.1289E+01	.9924E+00	.6991E-01	.1305E+01	.9841E+00	.1019E+01	.3336E+01	-.9908E+00	-.4633E-01	.4719E-01
29	.1406E+01	.1291E+01	.9921E+00	.6996E-01	.1306E+01	.9836E+00	.1018E+01	.3335E+01	-.9906E+00	-.2680E-01	.4731E-01
30	.1407E+01	.1292E+01	.9920E+00	.6999E-01	.1306E+01	.9832E+00	.1018E+01	.3335E+01	-.9885E+00	-.3105E-01	.4742E-01
31	.1407E+01	.1292E+01	.9920E+00	.6996E-01	.1307E+01	.9828E+00	.1018E+01	.3336E+01	-.9923E+00	-.9027E-02	.4746E-01
32	.1407E+01	.1293E+01	.9921E+00	.6988E-01	.1308E+01	.9824E+00	.1018E+01	.3337E+01	-.9986E+00	.1363E-01	.4748E-01
33	.1407E+01	.1293E+01	.9924E+00	.6975E-01	.1309E+01	.9817E+00	.1018E+01	.3338E+01	-.9960E+00	.3608E-02	.4747E-01
34	.1407E+01	.1293E+01	.9926E+00	.6952E-01	.1309E+01	.9811E+00	.1018E+01	.3340E+01	-.9995E+00	.1248E-01	.4741E-01
35	.1406E+01	.1293E+01	.9929E+00	.6919E-01	.1309E+01	.9806E+00	.1018E+01	.3341E+01	-.1004E+01	.2168E-01	.4731E-01
36	.1404E+01	.1293E+01	.9931E+00	.6877E-01	.1309E+01	.9803E+00	.1019E+01	.3343E+01	-.1007E+01	.2689E-01	.4717E-01
37	.1403E+01	.1292E+01	.9933E+00	.6826E-01	.1308E+01	.9802E+00	.1019E+01	.3344E+01	-.1014E+01	.3946E-01	.4699E-01
38	.1401E+01	.1291E+01	.9935E+00	.6767E-01	.1307E+01	.9802E+00	.1019E+01	.3345E+01	-.1020E+01	.4813E-01	.4677E-01
39	.1399E+01	.1289E+01	.9936E+00	.6700E-01	.1305E+01	.9805E+00	.1019E+01	.3346E+01	-.1021E+01	.4520E-01	.4649E-01
40	.1395E+01	.1286E+01	.9937E+00	.6620E-01	.1303E+01	.9811E+00	.1019E+01	.3346E+01	-.1019E+01	.3919E-01	.4609E-01
41	.1390E+01	.1282E+01	.9937E+00	.6519E-01	.1298E+01	.9820E+00	.1019E+01	.3347E+01	-.1022E+01	.3829E-01	.4547E-01
42	.1381E+01	.1275E+01	.9936E+00	.6382E-01	.1290E+01	.9833E+00	.1018E+01	.3348E+01	-.1061E+01	.7589E-01	.4448E-01
43	.1368E+01	.1264E+01	.9934E+00	.6193E-01	.1279E+01	.9853E+00	.1017E+01	.3349E+01	-.1064E+01	.8199E-01	.4295E-01
44	.1351E+01	.1250E+01	.9929E+00	.5966E-01	.1263E+01	.9880E+00	.1016E+01	.3349E+01	-.1058E+01	.7649E-01	.4094E-01
45	.1331E+01	.1235E+01	.9922E+00	.5726E-01	.1245E+01	.9911E+00	.1014E+01	.3350E+01	-.1035E+01	.4938E-01	.3865E-01
46	.1311E+01	.1219E+01	.9913E+00	.5492E-01	.1226E+01	.9940E+00	.1012E+01	.3350E+01	-.1061E+01	.8519E-01	.3632E-01
47	.1307E+01	.1209E+01	.9869E+00	.5265E-01	.1209E+01	.1002E+01	.1007E+01	.3327E+01	-.1096E+01	.1332E+00	.3577E-01
48	.1295E+01	.1197E+01	.9864E+00	.5108E-01	.1197E+01	.1006E+01	.1006E+01	.3324E+01	-.9984E+00	.5987E-01	.3439E-01
49	.1286E+01	.1191E+01	.9861E+00	.5005E-01	.1190E+01	.1007E+01	.1005E+01	.3326E+01	-.9552E+00	.5874E-01	.3340E-01
50	.1283E+01	.1191E+01	.9863E+00	.4972E-01	.1189E+01	.1005E+01	.1005E+01	.3330E+01	-.9943E+00	.5965E-01	.3301E-01
51	.1281E+01	.1191E+01	.9864E+00	.4982E-01	.1189E+01	.1003E+01	.1004E+01	.3333E+01	-.8344E+00	-.2994E+00	.3280E-01
52	.1278E+01	.1188E+01	.9864E+00	.4910E-01	.1186E+01	.1004E+01	.1004E+01	.3333E+01	.2874E+00	-.1015E+01	.3245E-01
53	.1276E+01	.1187E+01	.9865E+00	.4879E-01	.1185E+01	.1004E+01	.1004E+01	.3334E+01	.9090E+00	-.3706E+00	.3221E-01
54	.1275E+01	.1187E+01	.9866E+00	.4866E-01	.1184E+01	.1003E+01	.1004E+01	.3336E+01	.1010E+01	-.1942E+00	.3203E-01
55	.1272E+01	.1186E+01	.9867E+00	.4849E-01	.1183E+01	.1003E+01	.1004E+01	.3338E+01	.1382E+01	-.5146E+00	.3177E-01
56	.1268E+01	.1184E+01	.9872E+00	.4790E-01	.1181E+01	.1002E+01	.1004E+01	.3342E+01	.1119E+01	-.3303E+00	.3128E-01
57	.1260E+01	.1180E+01	.9879E+00	.4690E-01	.1178E+01	.9997E+00	.1004E+01	.3350E+01	.1012E+01	-.2741E+00	.3034E-01
58	.1243E+01	.1171E+01	.9911E+00	.4539E-01	.1173E+01	.9965E+00	.1007E+01	.3371E+01	.9978E+00	-.2455E+00	.2831E-01
59	.1226E+01	.1161E+01	.9927E+00	.4290E-01	.1164E+01	.9955E+00	.1007E+01	.3383E+01	.1015E+01	-.2062E+00	.2638E-01
60	.1204E+01	.1146E+01	.9947E+00	.3942E-01	.1151E+01	.9945E+00	.1008E+01	.3400E+01	.1099E+01	-.2398E+00	.2376E-01
61	.1175E+01	.1127E+01	.9973E+00	.3482E-01	.1134E+01	.9936E+00	.1009E+01	.3421E+01	.1028E+01	-.2158E+00	.2042E-01
62	.1142E+01	.1105E+01	.1000E+01	.2934E-01	.1115E+01	.9930E+00	.1011E+01	.3445E+01	.1007E+01	-.1974E+00	.1661E-01
63	.1107E+01	.1081E+01	.1003E+01	.2316E-01	.1092E+01	.9928E+00	.1012E+01	.3470E+01	.1008E+01	-.1942E+00	.1251E-01
64	.1072E+01	.1056E+01	.1006E+01	.1656E-01	.1069E+01	.9929E+00	.1012E+01	.3494E+01	.1016E+01	-.1730E+00	8396E-02
65	.1040E+01	.1033E+01	.1007E+01	.1010E-01	.1047E+01	.9931E+00	.1013E+01	.3515E+01	.1041E+01	-.1830E+00	.4661E-02
66	.1014E+01	.1015E+01	.1008E+01	.4457E-02	.1028E+01	.9935E+00	.1012E+01	.3530E+01	.1131E+01	-.2336E+00	.1678E-02
67	.9979E+00	.1003E+01	.1008E+01	.3756E-03	.1014E+01	.9939E+00	.1010E+01	.3537E+01	.1048E+01	-.1535E+00	-.2427E-03
68	.9914E+00	.9977E+00	.1007E+01	-.1683E-02	.1007E+01	.9946E+00	.1008E+01	.3535E+01	.1026E+01	-.1247E+00	-.1006E-02
69	.9918E+00	.9974E+00	.1005E+01	-.2130E-02	.1004E+01	.9955E+00	.1006E+01	.3528E+01	.1023E+01	-.1145E+00	-.9546E-03
70	.9952E+00	.9992E+00	.1003E+01	-.1712E-02	.1003E+01	.9964E+00	.1004E+01	.3518E+01	.1030E+01	-.1101E+00	-.5562E-03
71	.9985E+00	.1001E+01	.1002E+01	-.1102E-02	.1003E+01	.9971E+00	.1002E+01	.3511E+01	.1074E+01	-.1241E+00	-.1757E-03

72	.1000E+01	.1002E+01	.1001E+01	-.7246E-03	.1003E+01	.9975E+00	.1001E+01	.3507E+01	.1020E+01	-.7424E-01	.1229E-04	
73	.1000E+01	.1002E+01	.1001E+01	-.7244E-03	.1003E+01	.9975E+00	.1001E+01	.3507E+01	.1002E+01	-.4056E-01	.1239E-04	

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.4019E+02	.9000E+02	.8590E+01	0.	-.2500E+00	.9139E-11	0.	-.2399E-10	-.1608E+03	.9927E+00
2	.4019E+02	.8600E+02	.8590E+01	-.5642E-07	-.2500E+00	-.1618E-08	-.1990E-06	-.7997E-11	-.1608E+03	.9927E+00
3	.4019E+02	.8200E+02	.8590E+01	-.4626E-07	-.2500E+00	-.7412E-08	-.1633E-06	.1142E-11	-.1608E+03	.9920E+00
4	.4019E+02	.7800E+02	.8590E+01	-.5095E-07	-.2500E+00	-.2973E-07	-.1800E-06	.2285E-11	-.1608E+03	.9904E+00
5	.4019E+02	.7400E+02	.8590E+01	-.5722E-07	-.2500E+00	-.1144E-06	-.2020E-06	.2813E+01	-.1608E+03	.9877E+00
6	.4043E+02	.7000E+02	.8450E+01	-.6316E-07	-.2500E+00	-.4634E-06	-.2226E-06	.6064E+01	-.1617E+03	.9840E+00
7	.4072E+02	.6600E+02	.8290E+01	-.6732E-07	-.2500E+00	-.1980E-05	-.2364E-06	.6513E+01	-.1629E+03	.9793E+00
8	.4102E+02	.6200E+02	.8130E+01	-.6816E-07	-.2500E+00	-.8890E-05	-.2379E-06	.6561E+01	-.1641E+03	.9740E+00
9	.4133E+02	.5800E+02	.7970E+01	-.6452E-07	-.2500E+00	-.4208E-04	-.2228E-06	.6611E+01	-.1653E+03	.9691E+00
10	.4166E+02	.5400E+02	.7810E+01	-.5609E-07	-.2500E+00	-.2114E-03	-.1903E-06	.6456E+01	-.1666E+03	.9660E+00
11	.4199E+02	.5000E+02	.7660E+01	-.4345E-07	-.2500E+00	-.1126E-02	-.1425E-06	.6570E+01	-.1680E+03	.9663E+00
12	.4235E+02	.4600E+02	.7497E+01	-.2783E-07	-.2498E+00	-.6599E-02	-.8472E-07	.6813E+01	-.1694E+03	.9718E+00
13	.4938E+02	.4200E+02	.7338E+01	-.9391E-08	-.2835E+00	-.5581E-01	-.2004E-07	.6836E+01	-.1728E+03	.9834E+00
14	.5744E+02	.3900E+02	.7220E+01	.4459E-08	-.3323E+00	-.2871E-01	.2713E-07	.6826E+01	-.1723E+03	.1001E+01
15	.7200E+02	.3600E+02	.7101E+01	.1290E-07	-.3970E+00	-.1233E+00	.5377E-07	.4319E+01	-.1800E+03	.1022E+01
16	.8708E+02	.3400E+02	.7100E+01	.1735E-07	-.4997E+00	-.3953E-01	.6680E-07	.1704E-01	-.1743E+03	.1045E+01
17	.8727E+02	.3200E+02	.7100E+01	.2269E-07	-.5000E+00	-.2717E-01	.8411E-07	-.2639E-02	-.1745E+03	.1065E+01
18	.8808E+02	.3000E+02	.7100E+01	.2657E-07	-.5003E+00	-.5402E-01	.9631E-07	-.2312E-01	-.1761E+03	.1083E+01
19	.9285E+02	.2800E+02	.7101E+01	.2822E-07	-.5009E+00	-.1687E+00	.1009E-06	-.1472E+00	-.1854E+03	.1096E+01
20	.1754E+03	.2601E+02	.7104E+01	.1654E-07	-.6678E+00	-.7562E+00	.5876E-07	-.1601E+00	-.2629E+03	.1104E+01
21	.2321E+03	.2501E+02	.7103E+01	.1384E-07	-.1001E+01	-.8656E+00	.4908E-07	-.2030E+00	-.2319E+03	.1107E+01
22	.5767E+03	.2401E+02	.7105E+01	.6316E-08	-.1595E+01	-.2922E+01	.2243E-07	.3679E+00	-.3610E+03	.1105E+01
23	.7770E+03	.2375E+02	.7101E+01	.5256E-08	-.3935E+01	-.2041E+01	.1873E-07	.1792E+01	-.1965E+03	.1099E+01
24	.7216E+03	.2350E+02	.7101E+01	.5973E-08	-.3971E+01	-.1155E+01	.2129E-07	.1057E+01	-.1814E+03	.1094E+01
25	.7066E+03	.2325E+02	.7099E+01	.6316E-08	-.3978E+01	-.6878E+00	.2256E-07	.1872E+01	-.1773E+03	.1092E+01
26	.7043E+03	.2300E+02	.7095E+01	.6532E-08	-.3984E+01	-.3454E+00	.2340E-07	.2145E+01	-.1766E+03	.1090E+01
27	.7053E+03	.2275E+02	.7092E+01	.6777E-08	-.3990E+01	-.6778E-01	.2434E-07	.1764E+01	-.1768E+03	.1090E+01
28	.7082E+03	.2250E+02	.7090E+01	.7032E-08	-.3996E+01	.1625E+00	.2529E-07	.4231E+01	-.1774E+03	.1089E+01
29	.7139E+03	.2225E+02	.7081E+01	.7209E-08	-.4009E+01	.3690E+00	.2591E-07	.7819E+01	-.1788E+03	.1089E+01
30	.7197E+03	.2200E+02	.7069E+01	.7303E-08	-.4016E+01	.5611E+00	.2618E-07	.7158E+01	-.1802E+03	.1089E+01
31	.7276E+03	.2175E+02	.7061E+01	.7295E-08	-.4038E+01	.7125E+00	.2606E-07	.1123E+02	-.1822E+03	.1089E+01
32	.7380E+03	.2150E+02	.7038E+01	.7195E-08	-.4070E+01	.9097E+00	.2561E-07	.1545E+02	-.1848E+03	.1089E+01
33	.7427E+03	.2125E+02	.7019E+01	.7111E-08	-.4074E+01	.1078E+01	.2523E-07	.1371E+02	-.1859E+03	.1088E+01
34	.7417E+03	.2100E+02	.7001E+01	.7057E-08	-.4095E+01	.1231E+01	.2493E-07	.1519E+02	-.1857E+03	.1087E+01
35	.7432E+03	.2075E+02	.6978E+01	.6965E-08	-.4121E+01	.1414E+01	.2443E-07	.1669E+02	-.1861E+03	.1087E+01
36	.7444E+03	.2050E+02	.6956E+01	.6854E-08	-.4143E+01	.1582E+01	.2379E-07	.1745E+02	-.1864E+03	.1086E+01
37	.7508E+03	.2025E+02	.6931E+01	.6667E-08	-.4178E+01	.1779E+01	.2283E-07	.1949E+02	-.1880E+03	.1086E+01
38	.7453E+03	.2000E+02	.6904E+01	.6548E-08	-.4212E+01	.2008E+01	.2205E-07	.2045E+02	-.1867E+03	.1086E+01
39	.7463E+03	.1975E+02	.6876E+01	.6339E-08	-.4232E+01	.2288E+01	.2092E-07	.1966E+02	-.1870E+03	.1085E+01
40	.7597E+03	.1949E+02	.6851E+01	.6049E-08	-.4245E+01	.2621E+01	.1953E-07	.1870E+02	-.1905E+03	.1085E+01
41	.8150E+03	.1924E+02	.6827E+01	.5414E-08	-.4289E+01	.3353E+01	.1707E-07	.1922E+02	-.2051E+03	.1084E+01
42	.8086E+03	.1899E+02	.6804E+01	.5359E-08	-.3116E+01	.4506E+01	.1648E-07	.3080E+02	-.3040E+03	.1084E+01
43	.5595E+03	.1849E+02	.6751E+01	.7611E-08	-.2320E+01	.3023E+01	.2275E-07	.2955E+02	-.2796E+03	.1082E+01
44	.5342E+03	.1799E+02	.6698E+01	.7519E-08	-.2292E+01	.2852E+01	.2179E-07	.2729E+02	-.2671E+03	.1080E+01
45	.5218E+03	.1749E+02	.6648E+01	.2020E-09	-.2241E+01	.2810E+01	.2025E-07	.2228E+02	-.2608E+03	.1078E+01
46	.4988E+03	.1699E+02	.6613E+01	.3136E-07	-.2272E+01	.2579E+01	.1428E-07	.2628E+02	-.2493E+03	.1076E+01
47	.5172E+03	.1649E+02	.6543E+01	-.1721E-07	-.2361E+01	.2678E+01	.1224E-07	.3325E+02	-.2568E+03	.1081E+01
48	.4288E+03	.1600E+02	.6484E+01	.1695E-07	-.2953E+01	.2872E+00	.2140E-07	.1637E+02	-.1468E+03	.1081E+01
49	.1507E+04	.1581E+02	.6467E+01	.2339E-08	-.8485E+01	-.6546E+01	.7116E-08	.1673E+02	-.1647E+03	.1080E+01
50	.5636E+04	.1578E+02	.6462E+01	.5572E-09	-.3912E+02	.1324E+01	.1958E-08	.1600E+02	-.1446E+03	.1078E+01
51	.7507E+04	.1576E+02	.6461E+01	.7288E-10	-.4174E+02	.2998E+02	.1798E-08	-.3657E+02	-.1536E+03	.1076E+01
52	.1340E+05	.1574E+02	.6472E+01	.1106E-10	.2206E+02	.9137E+02	.2309E-08	-.1467E+03	-.2528E+00	.1076E+01
53	.6387E+04	.1576E+02	.6483E+01	.9740E-09	.4052E+02	.1965E+02	.4025E-08	-.5965E+02	.1287E+03	.1075E+01
54	.5436E+04	.1578E+02	.6491E+01	.7281E-09	.3872E+02	.1179E+01	.2061E-08	-.3451E+02	.1394E+03	.1074E+01
55	.2117E+04	.1581E+02	.6496E+01	.1410E-08	.1238E+02	-.9826E+01	.4165E-08	-.8139E+02	.2355E+03	.1073E+01
56	.6855E+03	.1600E+02	.6568E+01	.7466E-08	.4894E+01	-.1041E+01	.1312E-07	-.5318E+02	.1514E+03	.1072E+01
57	.5373E+03	.1625E+02	.6651E+01	-.6679E-08	.3900E+01	.3979E+00	.1071E-07	-.4436E+02	.1333E+03	.1068E+01
58	.5273E+03	.1650E+02	.6733E+01	.1966E-07	.3825E+01	.5646E+00	.1167E-07	-.3983E+02	.1320E+03	.1061E+01
59	.5350E+03	.1675E+02	.6802E+01	.2514E-08	.3919E+01	.1690E+00	.1919E-07	-.3417E+02	.1351E+03	.1057E+01
60	.4087E+03	.1700E+02	.6860E+01	.9635E-08	.2891E+01	-.8964E+00	.2822E-07	-.3862E+02	.1533E+03	.1050E+01
61	.2737E+03	.1750E+02	.6991E+01	.1543E-07	.2007E+01	.6544E-02	.4589E-07	-.3425E+02	.1362E+03	.1042E+01

62	.2678E+03	.1800E+02	.7111E+01	.1609E-07	.1958E+01	.1914E+00	.4883E-07	-.3079E+02	.1337E+03	.1034E+01
63	.2664E+03	.1850E+02	.7221E+01	.1549E-07	.1957E+01	.1912E+00	.4804E-07	-.2931E+02	.1333E+03	.1024E+01
64	.2667E+03	.1900E+02	.7331E+01	.1366E-07	.1980E+01	.8325E-01	.4352E-07	-.2535E+02	.1336E+03	.1015E+01
65	.2706E+03	.1950E+02	.7411E+01	.1061E-07	.2022E+01	-.1737E+00	.3517E-07	-.2558E+02	.1360E+03	.1006E+01
66	.2138E+03	.2000E+02	.7520E+01	.8716E-08	.1470E+01	-.7150E+00	.3111E-07	-.3099E+02	.1604E+03	.9994E+00
67	.1368E+03	.2100E+02	.7701E+01	.6385E-08	.1030E+01	-.1951E+00	.2758E-07	-.1991E+02	.1365E+03	.9951E+00
68	.1310E+03	.2200E+02	.7811E+01	.1142E-08	.1012E+01	-.9664E-01	.1254E-07	-.1574E+02	.1310E+03	.9937E+00
69	.1304E+03	.2300E+02	.7941E+01	-.1602E-08	.1011E+01	-.1067E+00	.4328E-08	-.1433E+02	.1304E+03	.9944E+00
70	.1332E+03	.2400E+02	.8031E+01	-.1881E-08	.1018E+01	-.1966E+00	.3008E-08	-.1387E+02	.1336E+03	.9960E+00
71	.1093E+03	.2501E+02	.8149E+01	-.1108E-08	.7108E+00	-.4578E+00	.6746E-08	-.1583E+02	.1639E+03	.9975E+00
72	.6934E+02	.2700E+02	.8321E+01	-.5236E-08	.5088E+00	-.1148E+00	.1919E-07	-.9759E+01	.1385E+03	.9983E+00
73	.6833E+02	.2900E+02	.8431E+01	0.	.5005E+00	.3884E-11	0.	-.5433E+01	.1365E+03	.9983E+00

SECOND INDEX= 5

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9734E+00	.9808E+00	.9999E+00	-.5364E-02	.9789E+00	.1000E+01	.9976E+00	.3513E+01	-.9999E+00	.5364E-02	-.3100E-02
2	.9734E+00	.9808E+00	.9999E+00	-.5365E-02	.9789E+00	.1000E+01	.9976E+00	.3513E+01	-.9999E+00	.5365E-02	-.3100E-02
3	.9706E+00	.9787E+00	.9998E+00	-.5936E-02	.9766E+00	.1000E+01	.9974E+00	.3514E+01	-.9998E+00	.5936E-02	-.3424E-02
4	.9643E+00	.9739E+00	.9998E+00	-.7236E-02	.9714E+00	.1001E+01	.9969E+00	.3516E+01	-.9998E+00	.7236E-02	-.4159E-02
5	.9543E+00	.9662E+00	.9997E+00	-.9325E-02	.9632E+00	.1001E+01	.9961E+00	.3521E+01	-.9999E+00	.2681E-01	-.5334E-02
6	.9407E+00	.9561E+00	.9997E+00	-.1217E-01	.9523E+00	.1002E+01	.9950E+00	.3528E+01	-.1000E+01	.4963E-01	-.6915E-02
7	.9247E+00	.9443E+00	.9998E+00	-.1558E-01	.9398E+00	.1002E+01	.9939E+00	.3537E+01	-.1001E+01	.5555E-01	-.8786E-02
8	.9081E+00	.9324E+00	.1000E+01	-.1918E-01	.9272E+00	.1002E+01	.9927E+00	.3547E+01	-.1001E+01	.5916E-01	-.1072E-01
9	.8938E+00	.9225E+00	.1000E+01	-.2235E-01	.9170E+00	.1001E+01	.9920E+00	.3558E+01	-.1001E+01	.6234E-01	-.1238E-01
10	.8857E+00	.9170E+00	.1001E+01	-.2423E-01	.9120E+00	.9998E+00	.9922E+00	.3567E+01	-.1002E+01	.6300E-01	-.1333E-01
11	.8877E+00	.9188E+00	.1002E+01	-.2385E-01	.9152E+00	.9994E+00	.9936E+00	.3569E+01	-.1003E+01	.6302E-01	-.1310E-01
12	.9038E+00	.9302E+00	.1003E+01	-.2035E-01	.9293E+00	.1000E+01	.9968E+00	.3563E+01	-.1003E+01	.6063E-01	-.1122E-01
13	.9369E+00	.9527E+00	.1004E+01	-.1323E-01	.9558E+00	.1003E+01	.1002E+01	.3545E+01	-.9949E+00	.5353E-01	-.7357E-02
14	.9877E+00	.9869E+00	.1005E+01	-.2650E-02	.9948E+00	.1006E+01	.1008E+01	.3516E+01	-.1002E+01	.4244E-01	-.1433E-02
15	.1054E+01	.1031E+01	.1005E+01	.1054E-01	.1045E+01	.1010E+01	.1014E+01	.3480E+01	-.1001E+01	.1409E-01	.6328E-02
16	.1132E+01	.1084E+01	.1004E+01	.2505E-01	.1102E+01	.1011E+01	.1019E+01	.3440E+01	-.1006E+01	-.2496E-01	.1541E-01
17	.1215E+01	.1140E+01	.1002E+01	.3944E-01	.1162E+01	.1011E+01	.1023E+01	.3401E+01	-.1004E+01	-.3953E-01	.2506E-01
18	.1295E+01	.1196E+01	.9993E+00	.5249E-01	.1220E+01	.1008E+01	.1025E+01	.3366E+01	-.1005E+01	-.5303E-01	.3444E-01
19	.1366E+01	.1246E+01	.9965E+00	.6320E-01	.1270E+01	.1004E+01	.1026E+01	.3338E+01	-.1018E+01	-.6812E-01	.4266E-01
20	.1418E+01	.1284E+01	.9938E+00	.7079E-01	.1307E+01	.9993E+00	.1025E+01	.3318E+01	-.1075E+01	-.1083E+00	.4879E-01
21	.1446E+01	.1306E+01	.9918E+00	.7465E-01	.1326E+01	.9951E+00	.1023E+01	.3308E+01	-.1057E+01	-.1006E+00	.5197E-01
22	.1448E+01	.1311E+01	.9908E+00	.7509E-01	.1329E+01	.9915E+00	.1021E+01	.3309E+01	-.1123E+01	-.1514E+00	.5223E-01
23	.1433E+01	.1303E+01	.9909E+00	.7327E-01	.1320E+01	.9889E+00	.1020E+01	.3317E+01	-.1021E+01	-.6480E-01	.5049E-01
24	.1417E+01	.1295E+01	.9917E+00	.7137E-01	.1311E+01	.9873E+00	.1019E+01	.3326E+01	-.1010E+01	-.6683E-01	.4867E-01
25	.1408E+01	.1289E+01	.9924E+00	.7029E-01	.1306E+01	.9864E+00	.1019E+01	.3332E+01	-.1003E+01	-.6027E-01	.4758E-01
26	.1404E+01	.1288E+01	.9928E+00	.6993E-01	.1305E+01	.9855E+00	.1020E+01	.3336E+01	-.9979E+00	-.5801E-01	.4717E-01
27	.1404E+01	.1288E+01	.9928E+00	.6991E-01	.1305E+01	.9847E+00	.1019E+01	.3337E+01	-.9938E+00	-.6007E-01	.4714E-01
28	.1405E+01	.1290E+01	.9925E+00	.6998E-01	.1306E+01	.9839E+00	.1019E+01	.3336E+01	-.9909E+00	-.4653E-01	.4724E-01
29	.1406E+01	.1291E+01	.9923E+00	.7003E-01	.1307E+01	.9833E+00	.1018E+01	.3336E+01	-.9907E+00	-.2707E-01	.4736E-01
30	.1407E+01	.1292E+01	.9922E+00	.7006E-01	.1307E+01	.9827E+00	.1018E+01	.3336E+01	-.9886E+00	-.3132E-01	.4747E-01
31	.1407E+01	.1293E+01	.9922E+00	.7004E-01	.1308E+01	.9823E+00	.1018E+01	.3337E+01	-.9924E+00	-.9322E-02	.4752E-01
32	.1408E+01	.1293E+01	.9923E+00	.6997E-01	.1309E+01	.9818E+00	.1018E+01	.3337E+01	-.9987E+00	.1331E-01	.4754E-01
33	.1408E+01	.1294E+01	.9925E+00	.6984E-01	.1310E+01	.9813E+00	.1018E+01	.3339E+01	-.9961E+00	.3505E-02	.4754E-01
34	.1407E+01	.1294E+01	.9928E+00	.6962E-01	.1310E+01	.9807E+00	.1018E+01	.3340E+01	-.9997E+00	.1252E-01	.4749E-01
35	.1406E+01	.1294E+01	.9930E+00	.6930E-01	.1310E+01	.9803E+00	.1019E+01	.3342E+01	-.1004E+01	.2167E-01	.4740E-01
36	.1405E+01	.1294E+01	.9932E+00	.6888E-01	.1310E+01	.9801E+00	.1019E+01	.3343E+01	-.1007E+01	.2680E-01	.4727E-01
37	.1404E+01	.1293E+01	.9934E+00	.6838E-01	.1309E+01	.9801E+00	.1019E+01	.3344E+01	-.1014E+01	.3955E-01	.4710E-01
38	.1402E+01	.1291E+01	.9935E+00	.6779E-01	.1308E+01	.9802E+00	.1019E+01	.3345E+01	-.1020E+01	.4827E-01	.4688E-01
39	.1400E+01	.1289E+01	.9936E+00	.6712E-01	.1306E+01	.9807E+00	.1019E+01	.3345E+01	-.1021E+01	.4479E-01	.4661E-01
40	.1396E+01	.1286E+01	.9936E+00	.6633E-01	.1303E+01	.9815E+00	.1019E+01	.3345E+01	-.1018E+01	.3761E-01	.4621E-01
41	.1391E+01	.1282E+01	.9935E+00	.6531E-01	.1298E+01	.9825E+00	.1019E+01	.3346E+01	-.1017E+01	.3179E-01	.4568E-01
42	.1382E+01	.1275E+01	.9934E+00	.6392E-01	.1290E+01	.9838E+00	.1018E+01	.3346E+01	-.1057E+01	.7107E-01	.4457E-01
43	.1369E+01	.1264E+01	.9932E+00	.6203E-01	.1278E+01	.9858E+00	.1017E+01	.3347E+01	-.1065E+01	.8280E-01	.4302E-01
44	.1352E+01	.1250E+01	.9927E+00	.5976E-01	.1263E+01	.9886E+00	.1016E+01	.3348E+01	-.1058E+01	.7657E-01	.4101E-01
45	.1332E+01	.1235E+01	.9919E+00	.5738E-01	.1244E+01	.9916E+00	.1014E+01	.3348E+01	-.1035E+01	.4972E-01	.3872E-01
46	.1312E+01	.1219E+01	.9910E+00	.5506E-01	.1226E+01	.9944E+00	.1012E+01	.3348E+01	-.1061E+01	.8552E-01	.3641E-01
47	.1307E+01	.1209E+01	.9867E+00	.5281E-01	.1209E+01	.1002E+01	.1007E+01	.3326E+01	-.1100E+01	.1390E+00	.3584E-01
48	.1296E+01	.1198E+01	.9862E+00	.5126E-01	.1197E+01	.1006E+01	.1006E+01	.3323E+01	-.1000E+01	.6390E-01	.3449E-01
49	.1287E+01	.1192E+01	.9860E+00	.5026E-01	.1190E+01	.1007E+01	.1005E+01	.3325E+01	-.9618E+00	.5550E-01	.3351E-01
50	.1284E+01	.1191E+01	.9862E+00	.4989E-01	.1189E+01	.1005E+01	.1005E+01	.3329E+01	-.9943E+00	.3005E-01	.3309E-01

51	.1281E+01	.1191E+01	.9863E+00	.4980E-01	.1189E+01	.1003E+01	.1004E+01	.3332E+01	-.6742E+00	-.4782E+00	.3280E-01
52	.1278E+01	.1188E+01	.9864E+00	.4908E-01	.1186E+01	.1004E+01	.1004E+01	.3333E+01	.3126E+00	-.1007E+01	.3245E-01
53	.1276E+01	.1187E+01	.9865E+00	.4873E-01	.1185E+01	.1004E+01	.1004E+01	.3334E+01	.8634E+00	-.4166E+00	.3220E-01
54	.1275E+01	.1187E+01	.9865E+00	.4866E-01	.1184E+01	.1003E+01	.1004E+01	.3335E+01	.9972E+00	-.1482E+00	.3204E-01
55	.1273E+01	.1186E+01	.9867E+00	.4856E-01	.1184E+01	.1003E+01	.1004E+01	.3337E+01	.1335E+01	-.4728E+00	.3186E-01
56	.1270E+01	.1185E+01	.9871E+00	.4815E-01	.1183E+01	.1002E+01	.1004E+01	.3341E+01	.1117E+01	-.3366E+00	.3150E-01
57	.1263E+01	.1182E+01	.9877E+00	.4741E-01	.1180E+01	.9995E+00	.1004E+01	.3348E+01	.1011E+01	-.2755E+00	.3072E-01
58	.1247E+01	.1174E+01	.9909E+00	.4612E-01	.1176E+01	.9964E+00	.1007E+01	.3368E+01	.9972E+00	-.2445E+00	.2885E-01
59	.1231E+01	.1164E+01	.9924E+00	.4369E-01	.1167E+01	.9954E+00	.1007E+01	.3381E+01	.1014E+01	-.2029E+00	.2696E-01
60	.1208E+01	.1149E+01	.9945E+00	.4016E-01	.1154E+01	.9944E+00	.1008E+01	.3397E+01	.1096E+01	-.2374E+00	.2429E-01
61	.1179E+01	.1130E+01	.9971E+00	.3550E-01	.1137E+01	.9936E+00	.1009E+01	.3419E+01	.1027E+01	-.2161E+00	.2091E-01
62	.1146E+01	.1108E+01	.9999E+00	.2996E-01	.1117E+01	.9930E+00	.1011E+01	.3442E+01	.1006E+01	-.1970E+00	.1704E-01
63	.1111E+01	.1083E+01	.1003E+01	.2372E-01	.1095E+01	.9928E+00	.1012E+01	.3467E+01	.1007E+01	-.1937E+00	.1289E-01
64	.1075E+01	.1058E+01	.1005E+01	.1703E-01	.1071E+01	.9929E+00	.1012E+01	.3492E+01	.1016E+01	-.1723E+00	.8708E-02
65	.1042E+01	.1035E+01	.1007E+01	.1046E-01	.1048E+01	.9932E+00	.1012E+01	.3514E+01	.1040E+01	-.1810E+00	.4894E-02
66	.1016E+01	.1016E+01	.1008E+01	.4682E-02	.1029E+01	.9935E+00	.1012E+01	.3529E+01	.1129E+01	-.2324E+00	.1823E-02
67	.9984E+00	.1003E+01	.1008E+01	.4584E-03	.1015E+01	.9940E+00	.1010E+01	.3536E+01	.1048E+01	-.1541E+00	-.1890E-03
68	.9913E+00	.9976E+00	.1007E+01	-.1709E-02	.1007E+01	.9947E+00	.1008E+01	.3535E+01	.1026E+01	-.1249E+00	-.1018E-02
69	.9914E+00	.9971E+00	.1005E+01	-.2204E-02	.1004E+01	.9955E+00	.1006E+01	.3528E+01	.1023E+01	-.1145E+00	-.9978E-03
70	.9949E+00	.9989E+00	.1003E+01	-.1781E-02	.1003E+01	.9964E+00	.1004E+01	.3519E+01	.1029E+01	-.1091E+00	-.5982E-03
71	.9983E+00	.1001E+01	.1002E+01	-.1141E-02	.1003E+01	.9971E+00	.1002E+01	.3511E+01	.1073E+01	-.1237E+00	-.2010E-03
72	.1000E+01	.1002E+01	.1001E+01	-.7413E-03	.1003E+01	.9976E+00	.1001E+01	.3507E+01	.1020E+01	-.7459E-01	.4698E-06
73	.1000E+01	.1002E+01	.1001E+01	-.7411E-03	.1003E+01	.9976E+00	.1001E+01	.3507E+01	.1002E+01	-.4031E-01	.5774E-06

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.2581E+02	.9000E+02	.8582E+01	0.	-.2500E+00	.1174E-10	0.	-.2347E-10	-.1032E+03	.9925E+00
2	.2581E+02	.8600E+02	.8582E+01	-.8781E-07	-.2500E+00	-.1625E-08	-.3098E-06	-.8802E-11	-.1032E+03	.9925E+00
3	.2581E+02	.8200E+02	.8582E+01	-.7203E-07	-.2500E+00	-.7394E-08	-.2544E-06	.7335E-12	-.1032E+03	.9918E+00
4	.2581E+02	.7800E+02	.8582E+01	-.7935E-07	-.2500E+00	-.2971E-07	-.2804E-06	.7335E-12	-.1032E+03	.9902E+00
5	.2581E+02	.7400E+02	.8582E+01	-.8911E-07	-.2500E+00	-.1144E-06	-.3146E-06	.1806E+01	-.1032E+03	.9876E+00
6	.2602E+02	.7000E+02	.8443E+01	-.9811E-07	-.2500E+00	-.4634E-06	-.3457E-06	.3901E+01	-.1041E+03	.9839E+00
7	.2628E+02	.6600E+02	.8283E+01	-.1042E-06	-.2500E+00	-.1980E-05	-.3660E-06	.4202E+01	-.1051E+03	.9792E+00
8	.2654E+02	.6200E+02	.8123E+01	-.1052E-06	-.2500E+00	-.8890E-05	-.3670E-06	.4244E+01	-.1062E+03	.9739E+00
9	.2683E+02	.5800E+02	.7963E+01	-.9933E-07	-.2500E+00	-.4208E-04	-.3428E-06	.4289E+01	-.1073E+03	.9690E+00
10	.2712E+02	.5400E+02	.7803E+01	-.8619E-07	-.2500E+00	-.2114E-03	-.2921E-06	.4201E+01	-.1085E+03	.9658E+00
11	.2743E+02	.5000E+02	.7653E+01	-.6669E-07	-.2500E+00	-.1126E-02	-.2187E-06	.4289E+01	-.1097E+03	.9661E+00
12	.2776E+02	.4600E+02	.7490E+01	-.4271E-07	-.2498E+00	-.6598E-02	-.1302E-06	.4462E+01	-.1110E+03	.9717E+00
13	.3246E+02	.4200E+02	.7332E+01	-.1446E-07	-.2836E+00	-.5563E-01	-.3124E-07	.4492E+01	-.1136E+03	.9834E+00
14	.3788E+02	.3900E+02	.7213E+01	.6713E-08	-.3323E+00	-.2869E-01	.4092E-07	.4497E+01	-.1136E+03	.1001E+01
15	.4757E+02	.3600E+02	.7094E+01	.1956E-07	-.3970E+00	-.1229E+00	.8165E-07	.2852E+01	-.1189E+03	.1022E+01
16	.5760E+02	.3400E+02	.7094E+01	.2630E-07	-.4995E+00	-.3951E-01	.1014E-06	.1853E-01	-.1153E+03	.1044E+01
17	.5782E+02	.3200E+02	.7094E+01	.3430E-07	-.5001E+00	-.2716E-01	.1274E-06	-.3999E-02	-.1156E+03	.1065E+01
18	.5848E+02	.3000E+02	.7094E+01	.4003E-07	-.5006E+00	-.5397E-01	.1454E-06	-.2736E-01	-.1168E+03	.1083E+01
19	.6177E+02	.2801E+02	.7094E+01	.4238E-07	-.5016E+00	-.1683E+00	.1518E-06	-.1672E+00	-.1232E+03	.1096E+01
20	.1160E+03	.2601E+02	.7099E+01	.2493E-07	-.6687E+00	-.7525E+00	.8864E-07	-.1809E+00	-.1737E+03	.1104E+01
21	.1541E+03	.2501E+02	.7098E+01	.2077E-07	-.1002E+01	-.8632E+00	.7366E-07	-.2311E+00	-.1539E+03	.1107E+01
22	.3785E+03	.2401E+02	.7102E+01	.9549E-08	-.1591E+01	-.2883E+01	.3390E-07	.4111E+00	-.2372E+03	.1105E+01
23	.5109E+03	.2376E+02	.7095E+01	.7913E-08	-.3890E+01	-.2029E+01	.2816E-07	.2018E+01	-.1303E+03	.1099E+01
24	.4764E+03	.2350E+02	.7094E+01	.8921E-08	-.3954E+01	-.1156E+01	.3174E-07	.8605E+00	-.1202E+03	.1095E+01
25	.4677E+03	.2325E+02	.7092E+01	.9 [illegible]E-08	-.3967E+01	-.6883E+00	.3345E-07	.1280E+01	-.1177E+03	.1092E+01
26	.4675E+03	.2300E+02	.7089E+01	.9668E-08	-.3976E+01	-.3450E+00	.3454E-07	.1429E+01	-.1175E+03	.1091E+01
27	.4690E+03	.2275E+02	.7086E+01	.1000E-07	-.3983E+01	-.6694E-01	.3585E-07	.1167E+01	-.1177E+03	.1090E+01
28	.4715E+03	.2250E+02	.7084E+01	.1037E-07	-.3990E+01	.1638E+00	.3724E-07	.2804E+01	-.1183E+03	.1089E+01
29	.4755E+03	.2225E+02	.7074E+01	.1063E-07	-.4003E+01	.3706E+00	.3820E-07	.5191E+01	-.1193E+03	.1089E+01
30	.4797E+03	.2200E+02	.7062E+01	.1078E-07	-.4012E+01	.5628E+00	.3870E-07	.4752E+01	-.1202E+03	.1089E+01
31	.4850E+03	.2175E+02	.7054E+01	.1080E-07	-.4034E+01	.7150E+00	.3869E-07	.7468E+01	-.1216E+03	.1089E+01
32	.4914E+03	.2150E+02	.7031E+01	.1068E-07	-.4065E+01	.9118E+00	.3814E-07	.1027E+02	-.1232E+03	.1088E+01
33	.4939E+03	.2125E+02	.7012E+01	.1057E-07	-.4070E+01	.1080E+01	.3758E-07	.9123E+01	-.1238E+03	.1088E+01
34	.4901E+03	.2100E+02	.6994E+01	.1055E-07	-.4091E+01	.1234E+01	.3729E-07	.1006E+02	-.1228E+03	.1087E+01
35	.4879E+03	.2074E+02	.6971E+01	.1048E-07	-.4117E+01	.1417E+01	.3672E-07	.1098E+02	-.1223E+03	.1087E+01
36	.4858E+03	.2049E+02	.6949E+01	.1037E-07	-.4138E+01	.1586E+01	.3593E-07	.1140E+02	-.1218E+03	.1086E+01
37	.4871E+03	.2024E+02	.6924E+01	.1014E-07	-.4173E+01	.1784E+01	.3461E-07	.1268E+02	-.1224E+03	.1086E+01
38	.4771E+03	.1999E+02	.6897E+01	.1008E-07	-.4206E+01	.2014E+01	.3377E-07	.1314E+02	-.1197E+03	.1086E+01
39	.4724E+03	.1974E+02	.6869E+01	.9850E-08	-.4225E+01	.2296E+01	.3224E-07	.1244E+02	-.1186E+03	.1086E+01
40	.4775E+03	.1949E+02	.6844E+01	.9456E-08	-.4233E+01	.2633E+01	.3019E-07	.1164E+02	-.1201E+03	.1085E+01

41	.5067E+03	.1924E+02	.6820E+01	.8584E-08	-.4252E+01	.3350E+01	.2673E-07	.1142E+02	-.1282E+03	.1085E+01
42	.4982E+03	.1898E+02	.6799E+01	.8607E-08	-.3097E+01	.4461E+01	.2621E-07	.1864E+02	-.1877E+03	.1084E+01
43	.3468E+03	.1849E+02	.6746E+01	.1219E-07	-.2322E+01	.3019E+01	.3616E-07	.1841E+02	-.1733E+03	.1083E+01
44	.3304E+03	.1799E+02	.6693E+01	.1211E-07	-.2292E+01	.2850E+01	.3486E-07	.1691E+02	-.1652E+03	.1081E+01
45	.3219E+03	.1749E+02	.6643E+01	.6328E-09	-.2242E+01	.2807E+01	.3260E-07	.1380E+02	-.1609E+03	.1079E+01
46	.3079E+03	.1699E+02	.6607E+01	.4971E-07	-.2274E+01	.2578E+01	.2333E-07	.1627E+02	-.1538E+03	.1076E+01
47	.3205E+03	.1649E+02	.6537E+01	-.2669E-07	-.2382E+01	.2679E+01	.2015E-07	.2106E+02	-.1582E+03	.1081E+01
48	.2703E+03	.1600E+02	.6476E+01	.2685E-07	-.3010E+01	.3405E+00	.3459E-07	.1051E+02	-.9097E+02	.1082E+01
49	.9047E+03	.1581E+02	.6460E+01	.3911E-08	-.8620E+01	-.5330E+01	.1184E-07	.1006E+02	-.9874E+02	.1080E+01
50	.2939E+04	.1578E+02	.6454E+01	.9498E-09	-.3261E+02	.5409E+01	.3598E-08	.7329E+01	-.9131E+02	.1078E+01
51	.3781E+04	.1575E+02	.6455E+01	.3783E-09	-.2748E+02	.3231E+02	.3811E-08	-.3856E+02	-.9223E+02	.1076E+01
52	.4966E+04	.1573E+02	.6474E+01	.3715E-09	.1486E+02	.5487E+02	.4421E-08	-.8942E+02	.4022E+01	.1076E+01
53	.3182E+04	.1575E+02	.6491E+01	.1368E-08	.3106E+02	.1955E+02	.5784E-08	-.4042E+02	.7700E+02	.1075E+01
54	.2783E+04	.1578E+02	.6500E+01	.1302E-08	.3241E+02	.1961E+01	.3836E-08	-.1706E+02	.8485E+02	.1074E+01
55	.1202E+04	.1581E+02	.6503E+01	.2443E-08	.1181E+02	-.8485E+01	.7307E-08	-.4626E+02	.1351E+03	.1073E+01
56	.4187E+03	.1600E+02	.6577E+01	.1240E-07	.4938E+01	-.9454E+00	.2226E-07	-.3284E+02	.9107E+02	.1072E+01
57	.3263E+03	.1625E+02	.6660E+01	-.1058E-07	.3918E+01	.4193E+00	.1887E-07	-.2696E+02	.8040E+02	.1069E+01
58	.3174E+03	.1650E+02	.6742E+01	.3246E-07	.3819E+01	.5704E+00	.1910E-07	-.2399E+02	.7953E+02	.1062E+01
59	.3199E+03	.1675E+02	.6811E+01	.3818E-08	.3886E+01	.1757E+00	.3081E-07	-.2039E+02	.8140E+02	.1058E+01
60	.2453E+03	.1701E+02	.6869E+01	.1536E-07	.2882E+01	-.8650E+00	.4480E-07	-.2319E+02	.9209E+02	.1051E+01
61	.1655E+03	.1750E+02	.7000E+01	.2466E-07	.2013E+01	.1179E-01	.7310E-07	-.2074E+02	.8208E+02	.1043E+01
62	.1614E+03	.1800E+02	.7120E+01	.2613E-07	.1959E+01	.1932E+00	.7916E-07	-.1856E+02	.8054E+02	.1035E+01
63	.1600E+03	.1850E+02	.7230E+01	.2550E-07	.1956E+01	.1918E+00	.7902E-07	-.1762E+02	.8011E+02	.1025E+01
64	.1596E+03	.1900E+02	.7340E+01	.2275E-07	.1977E+01	.8347E-01	.7244E-07	-.1519E+02	.8011E+02	.1016E+01
65	.1609E+03	.1950E+02	.7420E+01	.1789E-07	.2012E+01	-.1720E+00	.5927E-07	-.1516E+02	.8125E+02	.1007E+01
66	.1268E+03	.2001E+02	.7529E+01	.1484E-07	.1468E+01	-.7056E+00	.5287E-07	-.1839E+02	.9522E+02	.9998E+00
67	.8117E+02	.2100E+02	.7710E+01	.1101E-07	.1032E+01	-.1937E+00	.4723E-07	-.1186E+02	.8088E+02	.9952E+00
68	.7731E+02	.2200E+02	.7821E+01	.2116E-08	.1012E+01	-.9624E-01	.2179E-07	-.9297E+01	.7724E+02	.9937E+00
69	.7669E+02	.2300E+02	.7951E+01	-.2674E-08	.1011E+01	-.1065E+00	.7471E-08	-.8427E+01	.7677E+02	.9943E+00
70	.7831E+02	.2400E+02	.8041E+01	-.3225E-08	.1016E+01	-.1963E+00	.4985E-08	-.8092E+01	.7867E+02	.9960E+00
71	.6447E+02	.2501E+02	.8158E+01	-.1915E-08	.7104E+00	-.4547E+00	.1125E-07	-.9326E+01	.9672E+02	.9975E+00
72	.4143E+02	.2700E+02	.8330E+01	-.9689E-08	.5095E+00	-.1145E+00	.2881E-07	-.5851E+01	.8263E+02	.9983E+00
73	.4123E+02	.2900E+02	.8440E+01	0.	.5008E+00	-.2344E-11	0.	-.3254E+01	.8232E+02	.9983E+00

SECOND INDEX= 6

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9732E+00	.9808E+00	.9999E+00	-.5420E-02	.9789E+00	.1000E+01	.9976E+00	.3513E+01	-.9999E+00	.5420E-02	-.3130E-02
2	.9732E+00	.9808E+00	.9999E+00	-.5421E-02	.9789E+00	.1000E+01	.9976E+00	.3513E+01	-.9999E+00	.5421E-02	-.3131E-02
3	.9704E+00	.9787E+00	.9998E+00	-.5993E-02	.9765E+00	.1000E+01	.9973E+00	.3514E+01	-.9998E+00	.5993E-02	-.3455E-02
4	.9641E+00	.9738E+00	.9998E+00	-.7294E-02	.9713E+00	.1001E+01	.9968E+00	.3517E+01	-.9998E+00	.7294E-02	-.4191E-02
5	.9540E+00	.9662E+00	.9997E+00	-.9385E-02	.9631E+00	.1001E+01	.9960E+00	.3521E+01	-.9999E+00	.2686E-01	-.5366E-02
6	.9404E+00	.9560E+00	.9997E+00	-.1223E-01	.9522E+00	.1002E+01	.9950E+00	.3528E+01	-.1000E+01	.4967E-01	-.6950E-02
7	.9243E+00	.9442E+00	.9998E+00	-.1566E-01	.9396E+00	.1002E+01	.9938E+00	.3537E+01	-.1001E+01	.5559E-01	-.8825E-02
8	.9077E+00	.9323E+00	.1000E+01	-.1927E-01	.9270E+00	.1001E+01	.9927E+00	.3548E+01	-.1001E+01	.5922E-01	-.1077E-01
9	.8934E+00	.9223E+00	.1000E+01	-.2246E-01	.9168E+00	.1001E+01	.9920E+00	.3559E+01	-.1001E+01	.6242E-01	-.1244E-01
10	.8851E+00	.9167E+00	.1001E+01	-.2437E-01	.9117E+00	.9996E+00	.9921E+00	.3567E+01	-.1002E+01	.6310E-01	-.1340E-01
11	.8870E+00	.9183E+00	.1002E+01	-.2402E-01	.9148E+00	.9993E+00	.9937E+00	.3570E+01	-.1003E+01	.6316E-01	-.1318E-01
12	.9029E+00	.9294E+00	.1003E+01	-.2055E-01	.9287E+00	.1000E+01	.9969E+00	.3564E+01	-.1003E+01	.6079E-01	-.1132E-01
13	.9359E+00	.9517E+00	.1005E+01	-.1345E-01	.9550E+00	.1003E+01	.1002E+01	.3546E+01	-.9950E+00	.5372E-01	-.7479E-02
14	.9865E+00	.9857E+00	.1005E+01	-.2887E-02	.9940E+00	.1007E+01	.1008E+01	.3517E+01	-.1002E+01	.4261E-01	-.1570E-02
15	.1053E+01	.1030E+01	.1005E+01	.1030E-01	.1044E+01	.1010E+01	.1014E+01	.3480E+01	-.1001E+01	.1431E-01	.6182E-02
16	.1131E+01	.1083E+01	.1004E+01	.2484E-01	.1101E+01	.1011E+01	.1019E+01	.3440E+01	-.1006E+01	-.2466E-01	.1527E-01
17	.1214E+01	.1140E+01	.1002E+01	.3926E-01	.1162E+01	.1011E+01	.1023E+01	.3401E+01	-.1004E+01	-.3939E-01	.2493E-01
18	.1295E+01	.1196E+01	.9994E+00	.5236E-01	.1219E+01	.1008E+01	.1025E+01	.3366E+01	-.1005E+01	-.5307E-01	.3435E-01
19	.1365E+01	.1240E+01	.9965E+00	.6314E-01	.1270E+01	.1004E+01	.1026E+01	.3338E+01	-.1011E+01	-.6093E-01	.4261E-01
20	.1418E+01	.1284E+01	.9938E+00	.7081E-01	.1307E+01	.9995E+00	.1025E+01	.3318E+01	-.1075E+01	-.1088E+00	.4879E-01
21	.1446E+01	.1306E+01	.9918E+00	.7474E-01	.1327E+01	.9954E+00	.1024E+01	.3308E+01	-.1058E+01	-.1018E+00	.5203E-01
22	.1449E+01	.1311E+01	.9908E+00	.7525E-01	.1329E+01	.9919E+00	.1022E+01	.3308E+01	-.1119E+01	-.1474E+00	.5234E-01
23	.1434E+01	.1304E+01	.9909E+00	.7345E-01	.1320E+01	.9893E+00	.1020E+01	.3316E+01	-.1017E+01	-.5451E-01	.5062E-01
24	.1419E+01	.1295E+01	.9917E+00	.7155E-01	.1311E+01	.9878E+00	.1020E+01	.3325E+01	-.1010E+01	-.6492E-01	.4881E-01
25	.1409E+01	.1290E+01	.9925E+00	.7045E-01	.1307E+01	.9868E+00	.1020E+01	.3332E+01	-.1003E+01	-.6002E-01	.4770E-01
26	.1405E+01	.1288E+01	.9929E+00	.7007E-01	.1305E+01	.9859E+00	.1020E+01	.3335E+01	-.9980E+00	-.5819E-01	.4727E-01
27	.1405E+01	.1289E+01	.9929E+00	.7003E-01	.1306E+01	.9850E+00	.1020E+01	.3337E+01	-.9939E+00	-.6033E-01	.4722E-01
28	.1406E+01	.1290E+01	.9927E+00	.7009E-01	.1307E+01	.9840E+00	.1019E+01	.3337E+01	-.9910E+00	-.4688E-01	.4732E-01
29	.1407E+01	.1292E+01	.9925E+00	.7014E-01	.1308E+01	.9832E+00	.1019E+01	.3337E+01	-.9908E+00	-.2750E-01	.4744E-01

30	.1408E+01	.1293E+01	.9924E+00	.7018E-01	.1309E+01	.9825E+00	.1018E+01	.3337E+01	-.9887E+00	-.3175E-01	.4756E-01
31	.1408E+01	.1294E+01	.9924E+00	.7016E-01	.1309E+01	.9819E+00	.1018E+01	.3337E+01	-.9925E+00	-.9756E-02	.4762E-01
32	.1409E+01	.1294E+01	.9925E+00	.7010E-01	.1310E+01	.9814E+00	.1018E+01	.3338E+01	-.9988E+00	.1287E-01	.4765E-01
33	.1409E+01	.1295E+01	.9927E+00	.6998E-01	.1311E+01	.9809E+00	.1019E+01	.3340E+01	-.9963E+00	.3496E-02	.4766E-01
34	.1408E+01	.1295E+01	.9929E+00	.6977E-01	.1311E+01	.9805E+00	.1019E+01	.3341E+01	-.1000E+01	.1283E-01	.4762E-01
35	.1408E+01	.1295E+01	.9931E+00	.6946E-01	.1311E+01	.9803E+00	.1019E+01	.3342E+01	-.1004E+01	.2190E-01	.4754E-01
36	.1407E+01	.1294E+01	.9933E+00	.6906E-01	.1311E+01	.9802E+00	.1019E+01	.3343E+01	-.1007E+01	.2689E-01	.4742E-01
37	.1405E+01	.1293E+01	.9934E+00	.6856E-01	.1310E+01	.9803E+00	.1019E+01	.3343E+01	-.1015E+01	.4011E-01	.4727E-01
38	.1404E+01	.1292E+01	.9935E+00	.6798E-01	.1309E+01	.9808E+00	.1019E+01	.3344E+01	-.1021E+01	.4904E-01	.4706E-01
39	.1401E+01	.1290E+01	.9934E+00	.6732E-01	.1306E+01	.9815E+00	.1019E+01	.3343E+01	-.1020E+01	.4454E-01	.4680E-01
40	.1398E+01	.1286E+01	.9933E+00	.6653E-01	.1303E+01	.9826E+00	.1019E+01	.3343E+01	-.1017E+01	.3535E-01	.4640E-01
41	.1392E+01	.1282E+01	.9932E+00	.6551E-01	.1297E+01	.9837E+00	.1018E+01	.3342E+01	-.1010E+01	.2194E-01	.4576E-01
42	.1384E+01	.1275E+01	.9930E+00	.6411E-01	.1290E+01	.9850E+00	.1018E+01	.3340E+01	-.1000E+01	.6377E-01	.4473E-01
43	.1370E+01	.1264E+01	.9928E+00	.6224E-01	.1278E+01	.9868E+00	.1017E+01	.3344E+01	-.1061E+01	.8405E-01	.4317E-01
44	.1353E+01	.1250E+01	.9922E+00	.5996E-01	.1262E+01	.9895E+00	.1015E+01	.3345E+01	-.1057E+01	.7669E-01	.4114E-01
45	.1333E+01	.1235E+01	.9914E+00	.5759E-01	.1244E+01	.9924E+00	.1013E+01	.3345E+01	-.1034E+01	.5024E-01	.3886E-01
46	.1313E+01	.1219E+01	.9905E+00	.5529E-01	.1226E+01	.9951E+00	.1011E+01	.3345E+01	-.1061E+01	.8611E-01	.3655E-01
47	.1308E+01	.1209E+01	.9864E+00	.5307E-01	.1209E+01	.1003E+01	.1007E+01	.3324E+01	-.1107E+01	.1484E+00	.3597E-01
48	.1297E+01	.1199E+01	.9860E+00	.5156E-01	.1198E+01	.1006E+01	.1006E+01	.3322E+01	-.1003E+01	.7138E-01	.3467E-01
49	.1289E+01	.1194E+01	.9859E+00	.5061E-01	.1192E+01	.1006E+01	.1005E+01	.3324E+01	-.9734E+00	.5006E-01	.3373E-01
50	.1285E+01	.1192E+01	.9861E+00	.5021E-01	.1190E+01	.1004E+01	.1005E+01	.3329E+01	-.9733E+00	-.3838E-01	.3325E-01
51	.1282E+01	.1191E+01	.9863E+00	.4983E-01	.1189E+01	.1004E+01	.1004E+01	.3332E+01	-.4754E+00	-.6608E+00	.3284E-01
52	.1278E+01	.1188E+01	.9864E+00	.4901E-01	.1186E+01	.1004E+01	.1004E+01	.3333E+01	.3373E+00	-.9999E+00	.3241E-01
53	.1275E+01	.1186E+01	.9865E+00	.4858E-01	.1184E+01	.1004E+01	.1004E+01	.3334E+01	.8198E+00	-.4627E+00	.3211E-01
54	.1274E+01	.1186E+01	.9866E+00	.4854E-01	.1184E+01	.1003E+01	.1004E+01	.3336E+01	.9876E+00	-.1129E+00	.3195E-01
55	.1273E+01	.1186E+01	.9868E+00	.4844E-01	.1183E+01	.1003E+01	.1004E+01	.3337E+01	.1269E+01	-.4177E+00	.3180E-01
56	.1271E+01	.1185E+01	.9871E+00	.4813E-01	.1183E+01	.1002E+01	.1004E+01	.3340E+01	.1112E+01	-.3467E+00	.3155E-01
57	.1266E+01	.1183E+01	.9876E+00	.4766E-01	.1182E+01	.9997E+00	.1004E+01	.3347E+01	.1009E+01	-.2785E+00	.3096E-01
58	.1252E+01	.1177E+01	.9906E+00	.4679E-01	.1179E+01	.9963E+00	.1007E+01	.3366E+01	.9964E+00	-.2435E+00	.2936E-01
59	.1238E+01	.1169E+01	.9921E+00	.4482E-01	.1172E+01	.9953E+00	.1007E+01	.3377E+01	.1012E+01	-.1977E+00	.2778E-01
60	.1217E+01	.1155E+01	.9941E+00	.4160E-01	.1160E+01	.9943E+00	.1008E+01	.3393E+01	.1091E+01	-.2334E+00	.2533E-01
61	.1189E+01	.1137E+01	.9966E+00	.3713E-01	.1144E+01	.9935E+00	.1009E+01	.3413E+01	.1026E+01	-.2161E+00	.2205E-01
62	.1156E+01	.1115E+01	.9994E+00	.3164E-01	.1124E+01	.9930E+00	.1011E+01	.3437E+01	.1006E+01	-.1955E+00	.1819E-01
63	.1120E+01	.1090E+01	.1002E+01	.2536E-01	.1101E+01	.9928E+00	.1012E+01	.3462E+01	.1007E+01	-.1921E+00	.1398E-01
64	.1083E+01	.1064E+01	.1005E+01	.1849E-01	.1077E+01	.9929E+00	.1012E+01	.3487E+01	.1015E+01	-.1707E+00	.9658E-02
65	.1048E+01	.1039E+01	.1007E+01	.1166E-01	.1053E+01	.9932E+00	.1013E+01	.3509E+01	.1039E+01	-.1773E+00	.5647E-02
66	.1020E+01	.1019E+01	.1008E+01	.5534E-02	.1032E+01	.9936E+00	.1012E+01	.3526E+01	.1127E+01	-.2300E+00	.2342E-02
67	.1001E+01	.1005E+01	.1008E+01	.8968E-03	.1016E+01	.9941E+00	.1010E+01	.3535E+01	.1047E+01	-.1550E+00	.7327E-04
68	.9917E+00	.9978E+00	.1007E+01	-.1626E-02	.1007E+01	.9947E+00	.1008E+01	.3534E+01	.1026E+01	-.1252E+00	-.9682E-03
69	.9908E+00	.9966E+00	.1005E+01	-.2323E-02	.1003E+01	.9956E+00	.1006E+01	.3528E+01	.1023E+01	-.1144E+00	-.1067E-02
70	.9940E+00	.9983E+00	.1003E+01	-.1945E-02	.1002E+01	.9964E+00	.1003E+01	.3519E+01	.1029E+01	-.1074E+00	-.6953E-03
71	.9977E+00	.1000E+01	.1002E+01	-.1252E-02	.1003E+01	.9972E+00	.1002E+01	.3511E+01	.1072E+01	-.1229E+00	-.2685E-03
72	.9997E+00	.1002E+01	.1001E+01	-.7887E-03	.1003E+01	.9976E+00	.1001E+01	.3507E+01	.1020E+01	-.7512E-01	-.3012E-04
73	.9997E+00	.1002E+01	.1001E+01	-.7884E-03	.1003E+01	.9976E+00	.1001E+01	.3507E+01	.1002E+01	-.3983E-01	-.2999E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.1659E+02	.9000E+02	.8571E+01	0.	-.2500E+00	0.	0.	-.2310E-10	-.6636E+02	.9922E+00
2	.1659E+02	.8600E+02	.8571E+01	-.1365E-06	-.2500E+00	-.1614E-08	-.4822E-06	-.8487E-11	-.6636E+02	.9922E+00
3	.1659E+02	.8200E+02	.8571E+01	-.1120E-06	-.2500E+00	-.7389E-08	-.3959E-06	.9430E-12	-.6636E+02	.9915E+00
4	.1659E+02	.7800E+02	.8571E+01	-.1233E-06	-.2500E+00	-.2968E-07	-.4361E-06	.9430E-12	-.6636E+02	.9900E+00
5	.1659E+02	.7400E+02	.8571E+01	-.1385E-06	-.2500E+00	-.1143E-06	-.4890E-06	.1160E+01	-.6636E+02	.9874E+00
6	.1676E+02	.7000E+02	.8431E+01	-.1520E-06	-.2500E+00	-.4634E-06	-.5357E-06	.2511E+01	-.6706E+02	.9837E+00
7	.1697E+02	.6600E+02	.8271E+01	-.1611E-06	-.2500E+00	-.1980E-05	-.5653E-06	.2712E+01	-.6790E+02	.9789E+00
8	.1720E+02	.6200E+02	.8111E+01	-.1621E-06	-.2500E+00	-.8891E-05	-.5651E-06	.2748E+01	-.6879E+02	.9736E+00
9	.1743E+02	.5800E+02	.7952E+01	-.1527E-06	-.2500E+00	-.4209E-04	-.5268E-06	.2785E+01	-.6973E+02	.9687E+00
10	.1768E+02	.5400E+02	.7792E+01	-.1324E-06	-.2500E+00	-.2114E-03	-.4485E-06	.2736E+01	-.7072E+02	.9655E+00
11	.1794E+02	.5000E+02	.7642E+01	-.1025E-06	-.2500E+00	-.1127E-02	-.3361E-06	.2802E+01	-.7174E+02	.9658E+00
12	.1822E+02	.4600E+02	.7479E+01	-.6574E-07	-.2499E+00	-.6597E-02	-.2008E-06	.2924E+01	-.7283E+02	.9715E+00
13	.2137E+02	.4201E+02	.7321E+01	-.2249E-07	-.2836E+00	-.5536E-01	-.4942E-07	.2954E+01	-.7478E+02	.9833E+00
14	.2502E+02	.3900E+02	.7203E+01	.9894E-08	-.3324E+00	-.2867E-01	.6112E-07	.2964E+01	-.7503E+02	.1001E+01
15	.3147E+02	.3601E+02	.7084E+01	.2951E-07	-.3971E+00	-.1221E+00	.1236E-06	.1884E+01	-.7867E+02	.1022E+01
16	.3814E+02	.3400E+02	.7083E+01	.3974E-07	-.4992E+00	-.3950E-01	.1538E-06	.1899E-01	-.7640E+02	.1044E+01
17	.3836E+02	.3200E+02	.7083E+01	.5173E-07	-.5001E+00	-.2714E-01	.1928E-06	-.5484E-02	-.7670E+02	.1065E+01
18	.3889E+02	.3000E+02	.7083E+01	.6015E-07	-.5009E+00	-.5389E-01	.2190E-06	-.3079E-01	-.7764E+02	.1083E+01
19	.4117E+02	.2801E+02	.7085E+01	.6338E-07	-.5025E+00	-.1678E+00	.2274E-06	-.1803E+00	-.8199E+02	.1096E+01

20	.7672E+02	.2602E+02	.7092E+01	.3745E-07	-.6699E+00	-.7469E+00	.1333E-06	-.1938E+00	-.1147E+03	.1105E+01
21	.1024E+03	.2502E+02	.7090E+01	.3093E-07	-.1004E+01	-.8596E+00	.1097E-06	-.2495E+00	-.1022E+03	.1108E+01
22	.2476E+03	.2402E+02	.7097E+01	.1440E-07	-.1586E+01	-.2825E+01	.5107E-07	.4324E+00	-.1554E+03	.1105E+01
23	.3348E+03	.2376E+02	.7086E+01	.1186E-07	-.3824E+01	-.2013E+01	.4213E-07	.2143E+01	-.8641E+02	.1100E+01
24	.3144E+03	.2351E+02	.7084E+01	.1324E-07	-.3928E+01	-.1158E+01	.4697E-07	.7331E+00	-.7982E+02	.1095E+01
25	.3096E+03	.2325E+02	.7082E+01	.1385E-07	-.3951E+01	-.6889E+00	.4916E-07	.8834E+00	-.7820E+02	.1092E+01
26	.3105E+03	.2300E+02	.7078E+01	.1420E-07	-.3963E+01	-.3444E+00	.5049E-07	.9485E+00	-.7825E+02	.1091E+01
27	.3121E+03	.2275E+02	.7075E+01	.1464E-07	-.3973E+01	-.6570E-01	.5224E-07	.7677E+00	-.7855E+02	.1090E+01
28	.3141E+03	.2250E+02	.7074E+01	.1514E-07	-.3981E+01	.1657E+00	.5418E-07	.1853E+01	-.7897E+02	.1090E+01
29	.3171E+03	.2225E+02	.7064E+01	.1550E-07	-.3996E+01	.3729E+00	.5553E-07	.3441E+01	-.7967E+02	.1089E+01
30	.3200E+03	.2200E+02	.7052E+01	.1572E-07	-.4005E+01	.5652E+00	.5632E-07	.3151E+01	-.8035E+02	.1089E+01
31	.3236E+03	.2175E+02	.7044E+01	.1578E-07	-.4027E+01	.7186E+00	.5643E-07	.4966E+01	-.8124E+02	.1089E+01
32	.3275E+03	.2149E+02	.7021E+01	.1564E-07	-.4058E+01	.9149E+00	.5573E-07	.6830E+01	-.8225E+02	.1088E+01
33	.3287E+03	.2124E+02	.7002E+01	.1550E-07	-.4064E+01	.1084E+01	.5491E-07	.6092E+01	-.8251E+02	.1088E+01
34	.3242E+03	.2099E+02	.6984E+01	.1556E-07	-.4085E+01	.1239E+01	.5469E-07	.6702E+01	-.8141E+02	.1087E+01
35	.3207E+03	.2074E+02	.6961E+01	.1555E-07	-.4111E+01	.1422E+01	.5408E-07	.7258E+01	-.8052E+02	.1087E+01
36	.3173E+03	.2049E+02	.6939E+01	.1548E-07	-.4132E+01	.1592E+01	.5309E-07	.7480E+01	-.7967E+02	.1087E+01
37	.3163E+03	.2024E+02	.6914E+01	.1521E-07	-.4165E+01	.1791E+01	.5130E-07	.8304E+01	-.7951E+02	.1087E+01
38	.3057E+03	.1999E+02	.6886E+01	.1532E-07	-.4197E+01	.2023E+01	.5051E-07	.8503E+01	-.7693E+02	.1087E+01
39	.2993E+03	.1974E+02	.6858E+01	.1513E-07	-.4213E+01	.2309E+01	.4854E-07	.7900E+01	-.7537E+02	.1087E+01
40	.3003E+03	.1948E+02	.6834E+01	.1465E-07	-.4213E+01	.2651E+01	.4570E-07	.7226E+01	-.7583E+02	.1087E+01
41	.3144E+03	.1923E+02	.6810E+01	.1354E-07	-.4196E+01	.3347E+01	.4120E-07	.6583E+01	-.8018E+02	.1086E+01
42	.3057E+03	.1897E+02	.6792E+01	.1380E-07	-.3068E+01	.4392E+01	.4121E-07	.1112E+02	-.1156E+03	.1085E+01
43	.2151E+03	.1847E+02	.6737E+01	.1943E-07	-.2325E+01	.3014E+01	.5676E-07	.1151E+02	-.1074E+03	.1084E+01
44	.2044E+03	.1797E+02	.6685E+01	.1945E-07	-.2293E+01	.2847E+01	.5542E-07	.1050E+02	-.1022E+03	.1082E+01
45	.1987E+03	.1747E+02	.6635E+01	.1705E-08	-.2244E+01	.2802E+01	.5242E-07	.8574E+01	-.9929E+02	.1080E+01
46	.1902E+03	.1698E+02	.6598E+01	.7783E-07	-.2276E+01	.2578E+01	.3832E-07	.1011E+02	-.9501E+02	.1077E+01
47	.1992E+03	.1648E+02	.6528E+01	-.4002E-07	-.2416E+01	.2679E+01	.3371E-07	.1355E+02	-.9749E+02	.1082E+01
48	.1726E+03	.1600E+02	.6462E+01	.4136E-07	-.3101E+01	.4311E+00	.5473E-07	.6952E+01	-.5663E+02	.1082E+01
49	.5199E+03	.1582E+02	.6448E+01	.6576E-08	-.8774E+01	-.3252E+01	.2011E-07	.5754E+01	-.5712E+02	.1080E+01
50	.1462E+04	.1578E+02	.6440E+01	.1763E-08	-.2507E+02	.8973E+01	.7283E-08	.8479E+00	-.5862E+02	.1078E+01
51	.1785E+04	.1574E+02	.6446E+01	.1164E-08	-.1516E+02	.2903E+02	.7859E-08	-.3386E+02	-.5297E+02	.1076E+01
52	.1950E+04	.1572E+02	.6478E+01	.1374E-08	.1045E+02	.3485E+02	.8701E-08	-.5455E+02	.4646E+01	.1076E+01
53	.1504E+04	.1574E+02	.6502E+01	.2380E-08	.2262E+02	.1724E+02	.9655E-08	-.2706E+02	.4586E+02	.1075E+01
54	.1327E+04	.1578E+02	.6514E+01	.2590E-08	.2529E+02	.2750E+01	.7804E-08	-.8504E+01	.5155E+02	.1074E+01
55	.6592E+03	.1582E+02	.6515E+01	.4510E-08	.1099E+02	-.6615E+01	.1331E-07	-.2545E+02	.7529E+02	.1073E+01
56	.2566E+03	.1601E+02	.6591E+01	.2051E-07	.5000E+01	-.7819E+00	.3682E-07	-.2047E+02	.5452E+02	.1072E+01
57	.1988E+03	.1625E+02	.6675E+01	-.1677E-07	.3945E+01	.4548E+00	.3297E-07	-.1646E+02	.4850E+02	.1069E+01
58	.1910E+03	.1649E+02	.6757E+01	.5444E-07	.3809E+01	.5799E+00	.3303E-07	-.1445E+02	.4794E+02	.1063E+01
59	.1904E+03	.1675E+02	.6826E+01	.6161E-08	.3833E+01	.1866E+00	.5117E-07	-.1210E+02	.4907E+02	.1059E+01
60	.1469E+03	.1701E+02	.6884E+01	.2480E-07	.2866E+01	-.8137E+00	.7204E-07	-.1389E+02	.5520E+02	.1053E+01
61	.1003E+03	.1750E+02	.7015E+01	.3916E-07	.2023E+01	.2055E-01	.1156E-06	-.1260E+02	.4947E+02	.1046E+01
62	.9737E+02	.1800E+02	.7135E+01	.4200E-07	.1961E+01	.1962E+00	.1269E-06	-.1120E+02	.4852E+02	.1037E+01
63	.9617E+02	.1850E+02	.7245E+01	.4158E-07	.1954E+01	.1928E+00	.1286E-06	-.1061E+02	.4818E+02	.1028E+01
64	.9549E+02	.1900E+02	.7356E+01	.3768E-07	.1971E+01	.8383E-01	.1198E-06	-.9103E+01	.4806E+02	.1018E+01
65	.9544E+02	.1950E+02	.7436E+01	.3023E-07	.1997E+01	-.1692E+00	.1001E-06	-.8946E+01	.4856E+02	.1009E+01
66	.7506E+02	.2002E+02	.7543E+01	.2549E-07	.1463E+01	-.6900E+00	.9065E-07	-.1090E+02	.5644E+02	.1001E+01
67	.4824E+02	.2101E+02	.7726E+01	.1924E-07	.1035E+01	-.1915E+00	.8177E-07	-.7094E+01	.4794E+02	.9960E+00
68	.4564E+02	.2200E+02	.7837E+01	.3906E-08	.1013E+01	-.9555E-01	.3783E-07	-.5503E+01	.4557E+02	.9939E+00
69	.4512E+02	.2300E+02	.7967E+01	-.4841E-08	.1010E+01	-.1063E+00	.1152E-07	-.4955E+01	.4520E+02	.9942E+00
70	.4598E+02	.2401E+02	.8057E+01	-.6173E-08	.1012E+01	-.1958E+00	.6023E-08	-.4688E+01	.4635E+02	.9958E+00
71	.3800E+02	.2502E+02	.8171E+01	-.4123E-08	.7097E+00	-.4494E+00	.1591E-07	-.5480E+01	.5702E+02	.9973E+00
72	.2479E+02	.2701E+02	.8345E+01	-.2167E-07	.5107E+00	-.1139E+00	.2887E-07	-.3517E+01	.4933E+02	.9982E+00
73	.2491E+02	.2900E+02	.8455E+01	0.	.5015E+00	-.1416E-11	0.	-.1937E+01	.4967E+02	.9982E+00

SECOND INDEX= 7

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9727E+00	.9806E+00	.9999E+00	-.5512E-02	.9786E+00	.9998E+00	.9975E+00	.3514E+01	-.9999E+00	.5512E-02	-.3181E-02
2	.9727E+00	.9806E+00	.9999E+00	-.5512E-02	.9786E+00	.9998E+00	.9975E+00	.3514E+01	-.9999E+00	.5512E-02	-.3181E-02
3	.9699E+00	.9785E+00	.9998E+00	-.6084E-02	.9763E+00	.1000E+01	.9972E+00	.3515E+01	-.9998E+00	.6084E-02	-.3505E-02
4	.9636E+00	.9737E+00	.9997E+00	-.7387E-02	.9710E+00	.1000E+01	.9967E+00	.3517E+01	-.9997E+00	.7387E-02	-.4242E-02
5	.9535E+00	.9661E+00	.9997E+00	-.9482E-02	.9628E+00	.1001E+01	.9959E+00	.3522E+01	-.9998E+00	.2693E-01	-.5419E-02
6	.9399E+00	.9559E+00	.9997E+00	-.1234E-01	.9520E+00	.1001E+01	.9948E+00	.3529E+01	-.1000E+01	.4972E-01	-.7007E-02
7	.9238E+00	.9441E+00	.9998E+00	-.1578E-01	.9394E+00	.1001E+01	.9936E+00	.3538E+01	-.1001E+01	.5565E-01	-.8888E-02
8	.9071E+00	.9321E+00	.1000E+01	-.1941E-01	.9268E+00	.1001E+01	.9925E+00	.3549E+01	-.1001E+01	.5930E-01	-.1084E-01

9	.8926E+00	.9220E+00	.1001E+01	-.2263E-01	.9165E+00	.1000E+01	.9919E+00	.3560E+01	-.1001E+01	.6253E-01	-.1252E-01
10	.8842E+00	.9163E+00	.1001E+01	-.2458E-01	.9114E+00	.9993E+00	.9922E+00	.3569E+01	-.1002E+01	.6325E-01	-.1351E-01
11	.8858E+00	.9176E+00	.1002E+01	-.2428E-01	.9143E+00	.9992E+00	.9938E+00	.3572E+01	-.1003E+01	.6336E-01	-.1331E-01
12	.9016E+00	.9284E+00	.1004E+01	-.2085E-01	.9279E+00	.1000E+01	.9971E+00	.3565E+01	-.1003E+01	.6101E-01	-.1148E-01
13	.9343E+00	.9504E+00	.1005E+01	-.1379E-01	.9540E+00	.1003E+01	.1002E+01	.3547E+01	-.9953E+00	.5398E-01	-.7663E-02
14	.9848E+00	.9842E+00	.1006E+01	-.3244E-02	.9928E+00	.1007E+01	.1008E+01	.3518E+01	-.1003E+01	.4285E-01	-.1777E-02
15	.1051E+01	.1029E+01	.1005E+01	.9952E-02	.1043E+01	.1010E+01	.1014E+01	.3482E+01	-.1001E+01	.1461E-01	.5963E-02
16	.1129E+01	.1082E+01	.1004E+01	.2452E-01	.1100E+01	.1012E+01	.1019E+01	.3442E+01	-.1006E+01	-.2422E-01	.1505E-01
17	.1212E+01	.1139E+01	.1002E+01	.3900E-01	.1161E+01	.1011E+01	.1023E+01	.3403E+01	-.1004E+01	-.3919E-01	.2474E-01
18	.1293E+01	.1195E+01	.9996E+00	.5217E-01	.1219E+01	.1008E+01	.1025E+01	.3367E+01	-.1005E+01	-.5313E-01	.3420E-01
19	.1365E+01	.1245E+01	.9966E+00	.6304E-01	.1269E+01	.1004E+01	.1026E+01	.3338E+01	-.1019E+01	-.7012E-01	.4253E-01
20	.1418E+01	.1284E+01	.9939E+00	.7082E-01	.1307E+01	.9998E+00	.1025E+01	.3318E+01	-.1075E+01	-.1095E+00	.4879E-01
21	.1447E+01	.1306E+01	.9918E+00	.7488E-01	.1327E+01	.9958E+00	.1024E+01	.3307E+01	-.1059E+01	-.1036E+00	.5210E-01
22	.1450E+01	.1311E+01	.9908E+00	.7547E-01	.1330E+01	.9925E+00	.1022E+01	.3307E+01	-.1114E+01	-.1417E+00	.5248E-01
23	.1436E+01	.1304E+01	.9909E+00	.7371E-01	.1321E+01	.9900E+00	.1020E+01	.3315E+01	-.1010E+01	-.3982E-01	.5081E-01
24	.1420E+01	.1295E+01	.9917E+00	.7182E-01	.1312E+01	.9885E+00	.1020E+01	.3324E+01	-.1010E+01	-.6203E-01	.4901E-01
25	.1411E+01	.1290E+01	.9926E+00	.7070E-01	.1308E+01	.9875E+00	.1020E+01	.3331E+01	-.1003E+01	-.5973E-01	.4789E-01
26	.1407E+01	.1288E+01	.9930E+00	.7027E-01	.1306E+01	.9866E+00	.1020E+01	.3335E+01	-.9982E+00	-.5858E-01	.4743E-01
27	.1406E+01	.1289E+01	.9931E+00	.7021E-01	.1307E+01	.9855E+00	.1020E+01	.3336E+01	-.9941E+00	-.6078E-01	.4736E-01
28	.1407E+01	.1290E+01	.9929E+00	.7025E-01	.1308E+01	.9844E+00	.1020E+01	.3337E+01	-.9911E+00	-.4743E-01	.4744E-01
29	.1408E+01	.1292E+01	.9927E+00	.7031E-01	.1309E+01	.9834E+00	.1019E+01	.3337E+01	-.9910E+00	-.2819E-01	.4757E-01
30	.1409E+01	.1294E+01	.9926E+00	.7035E-01	.1310E+01	.9826E+00	.1019E+01	.3337E+01	-.9888E+00	-.3240E-01	.4769E-01
31	.1410E+01	.1295E+01	.9926E+00	.7035E-01	.1311E+01	.9820E+00	.1019E+01	.3338E+01	-.9926E+00	-.1038E-01	.4776E-01
32	.1410E+01	.1295E+01	.9927E+00	.7030E-01	.1312E+01	.9815E+00	.1019E+01	.3339E+01	-.9988E+00	.1230E-01	.4781E-01
33	.1410E+01	.1296E+01	.9929E+00	.7019E-01	.1312E-01	.9811E+00	.1019E+01	.3339E+01	-.9966E+00	.3716E-02	.4783E-01
34	.1410E+01	.1296E+01	.9930E+00	.7000E-01	.1313E+01	.9809E+00	.1019E+01	.3340E+01	-.1000E+01	.1369E-01	.4781E-01
35	.1409E+01	.1296E+01	.9931E+00	.6970E-01	.1312E+01	.9808E+00	.1019E+01	.3341E+01	-.1005E+01	.2265E-01	.4775E-01
36	.1409E+01	.1295E+01	.9932E+00	.6931E-01	.1312E+01	.9810E+00	.1019E+01	.3341E+01	-.1008E+01	.2742E-01	.4766E-01
37	.1408E+01	.1294E+01	.9932E+00	.6883E-01	.1311E+01	.9814E+00	.1019E+01	.3341E+01	-.1015E+01	.4161E-01	.4752E-01
38	.1406E+01	.1292E+01	.9932E+00	.6827E-01	.1309E+01	.9822E+00	.1019E+01	.3340E+01	-.1022E+01	.5109E-01	.4734E-01
39	.1404E+01	.1290E+01	.9930E+00	.6762E-01	.1306E+01	.9833E+00	.1019E+01	.3339E+01	-.1020E+01	.4472E-01	.4709E-01
40	.1400E+01	.1286E+01	.9927E+00	.6684E-01	.1302E+01	.9845E+00	.1019E+01	.3337E+01	-.1014E+01	.3214E-01	.4669E-01
41	.1395E+01	.1281E+01	.9925E+00	.6583E-01	.1296E+01	.9857E+00	.1018E+01	.3337E+01	-.9997E+00	.7373E-02	.4604E-01
42	.1386E+01	.1274E+01	.9923E+00	.6441E-01	.1289E+01	.9868E+00	.1017E+01	.3338E+01	-.1040E+01	.5315E-01	.4498E-01
43	.1372E+01	.1264E+01	.9921E+00	.6251E-01	.1277E+01	.9884E+00	.1016E+01	.3339E+01	-.1066E+01	.8607E-01	.4339E-01
44	.1355E+01	.1250E+01	.9914E+00	.6028E-01	.1261E+01	.9908E+00	.1015E+01	.3340E+01	-.1057E+01	.7698E-01	.4136E-01
45	.1335E+01	.1235E+01	.9906E+00	.5796E-01	.1243E+01	.9935E+00	.1013E+01	.3340E+01	-.1034E+01	.5114E-01	.3908E-01
46	.1316E+01	.1220E+01	.9898E+00	.5569E-01	.1225E+01	.9960E+00	.1011E+01	.3341E+01	-.1061E+01	.8728E-01	.3680E-01
47	.1311E+01	.1210E+01	.9860E+00	.5351E-01	.1210E+01	.1003E+01	.1006E+01	.3321E+01	-.1118E+01	.1635E+00	.3622E-01
48	.1300E+01	.1201E+01	.9858E+00	.5205E-01	.1199E+01	.1006E+01	.1006E+01	.3320E+01	-.1011E+01	.8716E-01	.3499E-01
49	.1292E+01	.1196E+01	.9858E+00	.5117E-01	.1194E+01	.1006E+01	.1005E+01	.3323E+01	-.9863E+00	.3870E-01	.3408E-01
50	.1287E+01	.1194E+01	.9860E+00	.5066E-01	.1192E+01	.1004E+01	.1005E+01	.3328E+01	-.8941E+00	-.1774E+00	.3349E-01
51	.1282E+01	.1191E+01	.9862E+00	.4989E-01	.1189E+01	.1004E+01	.1005E+01	.3331E+01	-.2758E+00	-.8163E+00	.3291E-01
52	.1277E+01	.1187E+01	.9864E+00	.4887E-01	.1185E+01	.1004E+01	.1004E+01	.3333E+01	.3588E+00	-.9873E+00	.3234E-01
53	.1274E+01	.1185E+01	.9866E+00	.4833E-01	.1183E+01	.1004E+01	.1004E+01	.3335E+01	.7804E+00	-.5079E+00	.3195E-01
54	.1272E+01	.1185E+01	.9867E+00	.4829E-01	.1183E+01	.1003E+01	.1004E+01	.3337E+01	.9782E+00	-.9811E-01	.3176E-01
55	.1271E+01	.1185E+01	.9869E+00	.4815E-01	.1182E+01	.1003E+01	.1004E+01	.3339E+01	.1177E+01	-.3474E+00	.3159E-01
56	.1269E+01	.1184E+01	.9872E+00	.4777E-01	.1182E+01	.1002E+01	.1004E+01	.3341E+01	.1099E+01	-.3602E+00	.3136E-01
57	.1265E+01	.1183E+01	.9877E+00	.4743E-01	.1181E+01	.1000E+01	.1004E+01	.3347E+01	.1007E+01	-.2838E+00	.3090E-01
58	.1253E+01	.1178E+01	.9906E+00	.4699E-01	.1180E+01	.9960E+00	.1007E+01	.3365E+01	.9952E+00	-.2430E+00	.2953E-01
59	.1244E+01	.1173E+01	.9918E+00	.4570E-01	.1176E+01	.9951E+00	.1007E+01	.3374E+01	.1009E+01	-.1908E+00	.2844E-01
60	.1227E+01	.1162E+01	.9935E+00	.4317E-01	.1167E+01	.9941E+00	.1008E+01	.3388E+01	.1083E+01	-.2280E+00	.2648E-01
61	.1202E+01	.1146E+01	.9959E+00	.3927E-01	.1153E+01	.9933E+00	.1009E+01	.3406E+01	.1025E+01	-.2166E+00	.2358E-01
62	.1171E+01	.1125E+01	.9986E+00	.3421E-01	.1134E+01	.9929E+00	.1011E+01	.3426E+01	.1005E+01	-.1935E+00	.1997E-01
63	.1136E+01	.1101E+01	.1001E+01	.2818E-01	.1112E+01	.9928E+00	.1012E+01	.3452E+01	.1006E+01	-.1894E+00	.1587E-01
64	.1099E+01	.1075E+01	.1004E+01	.2135E-01	.1087E+01	.9930E+00	.1013E+01	.3477E+01	.1015E+01	-.1676E+00	.1151E-01
65	.1063E+01	.1049E+01	.1006E+01	.1427E-01	.1062E+01	.9933E+00	.1013E+01	.3500E+01	.1037E+01	-.1707E+00	.7290E-02
66	.1031E+01	.1027E+01	.1007E+01	.7672E-02	.1040E+01	.9938E+00	.1012E+01	.3518E+01	.1121E+01	-.2254E+00	.3642E-02
67	.1008E+01	.1010E+01	.1007E+01	.2348E-02	.1021E+01	.9943E+00	.1010E+01	.3529E+01	.1047E+01	-.1558E+00	.9328E-03
68	.9953E+00	.1000E+01	.1006E+01	-.8939E-03	.1009E+01	.9949E+00	.1008E+01	.3532E+01	.1026E+01	-.1251E+00	-.5433E-03
69	.9917E+00	.9972E+00	.1005E+01	-.2141E-02	.1004E+01	.9957E+00	.1005E+01	.3527E+01	.1023E+01	-.1140E+00	-.9651E-03
70	.9935E+00	.9978E+00	.1003E+01	-.2048E-02	.1002E+01	.9965E+00	.1003E+01	.3519E+01	.1028E+01	-.1045E+00	-.7594E-03
71	.9969E+00	.9997E+00	.1002E+01	-.1408E-02	.1002E+01	.9973E+00	.1002E+01	.3511E+01	.1071E+01	-.1215E+00	-.3638E-03
72	.9992E+00	.1001E+01	.1001E+01	-.8872E-03	.1002E+01	.9977E+00	.1001E+01	.3507E+01	.1020E+01	-.7588E-01	-.9198E-04
73	.9992E+00	.1001E+01	.1001E+01	-.8869E-03	.1002E+01	.9977E+00	.1001E+01	.3507E+01	.1002E+01	-.3891E-01	-.9182E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.1068E+02	.9000E+02	.8552E+01	0.	-.2500E+00	.2429E-11	0.	-.2064E-10	-.4272E+02	.9920E+00
2	.1068E+02	.8600E+02	.8552E+01	-.2123E-06	-.2500E+00	-.1620E-08	-.7516E-06	-.6375E-11	-.4272E+02	.9920E+00
3	.1068E+02	.8200E+02	.8552E+01	-.1740E-06	-.2500E+00	-.7385E-08	-.6165E-06	0.	-.4272E+02	.9913E+00
4	.1068E+02	.7800E+02	.8552E+01	-.1914E-06	-.2500E+00	-.2967E-07	-.6779E-06	-.6071E-12	-.4272E+02	.9897E+00
5	.1068E+02	.7400E+02	.8552E+01	-.2146E-06	-.2500E+00	-.1143E-06	-.7588E-06	.7455E+00	-.4272E+02	.9870E+00
6	.1082E+02	.7000E+02	.8413E+01	-.2349E-06	-.2500E+00	-.4634E-06	-.8280E-06	.1618E+01	-.4328E+02	.9833E+00
7	.1099E+02	.6600E+02	.8253E+01	-.2481E-06	-.2500E+00	-.1980E-05	-.8704E-06	.1752E+01	-.4394E+02	.9785E+00
8	.1116E+02	.6200E+02	.8094E+01	-.2491E-06	-.2500E+00	-.8891E-05	-.8678E-06	.1780E+01	-.4465E+02	.9731E+00
9	.1135E+02	.5800E+02	.7934E+01	-.2344E-06	-.2500E+00	-.4209E-04	-.8076E-06	.1810E+01	-.4539E+02	.9681E+00
10	.1155E+02	.5400E+02	.7775E+01	-.2032E-06	-.2500E+00	-.2114E-03	-.6877E-06	.1784E+01	-.4619E+02	.9649E+00
11	.1175E+02	.5000E+02	.7625E+01	-.1576E-06	-.2500E+00	-.1127E-02	-.5167E-06	.1833E+01	-.4700E+02	.9654E+00
12	.1198E+02	.4600E+02	.7463E+01	-.1015E-06	-.2500E+00	-.6595E-02	-.3105E-06	.1918E+01	-.4789E+02	.9711E+00
13	.1410E+02	.4201E+02	.7305E+01	-.3541E-07	-.2837E+00	-.5496E-01	-.7905E-07	.1944E+01	-.4931E+02	.9831E+00
14	.1656E+02	.3900E+02	.7187E+01	.1415E-07	-.3324E+00	-.2864E-01	.9043E-07	.1955E+01	-.4965E+02	.1001E+01
15	.2085E+02	.3601E+02	.7069E+01	.4423E-07	-.3971E+00	-.1210E+00	.1866E-06	.1246E+01	-.5214E+02	.1022E+01
16	.2530E+02	.3400E+02	.7067E+01	.5986E-07	-.4987E+00	-.3947E-01	.2330E-06	.1875E-01	-.5073E+02	.1044E+01
17	.2550E+02	.3200E+02	.7067E+01	.7778E-07	-.5001E+00	-.2711E-01	.2913E-06	-.7066E-02	-.5099E+02	.1065E+01
18	.2593E+02	.3000E+02	.7068E+01	.9004E-07	-.5014E+00	-.5378E-01	.3292E-06	-.3369E-01	-.5171E+02	.1082E+01
19	.2752E+02	.2801E+02	.7070E+01	.9432E-07	-.5040E+00	-.1670E+00	.3395E-06	-.1887E+00	-.5466E+02	.1096E+01
20	.5078E+02	.2603E+02	.7082E+01	.5604E-07	-.6718E+00	-.7386E+00	.1998E-06	-.2012E+00	-.7580E+02	.1105E+01
21	.6817E+02	.2503E+02	.7078E+01	.4580E-07	-.1006E+01	-.8542E+00	.1624E-06	-.2610E+00	-.6798E+02	.1108E+01
22	.1611E+03	.2404E+02	.7089E+01	.2170E-07	-.1578E+01	-.2742E+01	.7681E-07	.4361E+00	-.1013E+03	.1106E+01
23	.2183E+03	.2377E+02	.7073E+01	.1772E-07	-.3730E+01	-.1990E+01	.6273E-07	.2192E+01	-.5736E+02	.1101E+01
24	.2073E+03	.2351E+02	.7069E+01	.1948E-07	-.3889E+01	-.1161E+01	.6876E-07	.6517E+00	-.5310E+02	.1096E+01
25	.2049E+03	.2326E+02	.7066E+01	.2022E-07	-.3926E+01	-.6898E+00	.7131E-07	.6164E+00	-.5209E+02	.1093E+01
26	.2063E+03	.2300E+02	.7063E+01	.2061E-07	-.3944E+01	-.3435E+00	.7278E-07	.6237E+00	-.5224E+02	.1092E+01
27	.2078E+03	.2275E+02	.7060E+01	.2118E-07	-.3957E+01	-.6385E-01	.7500E-07	.4986E+00	-.5252E+02	.1091E+01
28	.2095E+03	.2250E+02	.7058E+01	.2184E-07	-.3968E+01	.1685E+00	.7754E-07	.1219E+01	-.5284E+02	.1090E+01
29	.2116E+03	.2225E+02	.7049E+01	.2231E-07	-.3984E+01	.3763E+00	.7929E-07	.2276E+01	-.5334E+02	.1090E+01
30	.2138E+03	.2199E+02	.7037E+01	.2259E-07	-.3995E+01	.5689E+00	.8026E-07	.2085E+01	-.5382E+02	.1089E+01
31	.2162E+03	.2174E+02	.7029E+01	.2266E-07	-.4017E+01	.7240E+00	.8037E-07	.3303E+01	-.5442E+02	.1089E+01
32	.2186E+03	.2149E+02	.7006E+01	.2249E-07	-.4048E+01	.9196E+00	.7937E-07	.4550E+01	-.5504E+02	.1089E+01
33	.2191E+03	.2124E+02	.6987E+01	.2232E-07	-.4055E+01	.1089E+01	.7814E-07	.4094E+01	-.5514E+02	.1088E+01
34	.2148E+03	.2099E+02	.6969E+01	.2256E-07	-.4076E+01	.1245E+01	.7809E-07	.4507E+01	-.5468E+02	.1088E+01
35	.2110E+03	.2074E+02	.6945E+01	.2269E-07	-.4101E+01	.1429E+01	.7750E-07	.4839E+01	-.5315E+02	.1088E+01
36	.2075E+03	.2048E+02	.6923E+01	.2272E-07	-.4122E+01	.1601E+01	.7629E-07	.4944E+01	-.5227E+02	.1088E+01
37	.2057E+03	.2023E+02	.6898E+01	.2249E-07	-.4153E+01	.1802E+01	.7394E-07	.5500E+01	-.5190E+02	.1088E+01
38	.1960E+03	.1998E+02	.6870E+01	.2300E-07	-.4182E+01	.2038E+01	.7364E-07	.5577E+01	-.4960E+02	.1088E+01
39	.1898E+03	.1973E+02	.6841E+01	.2305E-07	-.4194E+01	.2329E+01	.7156E-07	.5054E+01	-.4806E+02	.1089E+01
40	.1890E+03	.1947E+02	.6816E+01	.2259E-07	-.4181E+01	.2680E+01	.6809E-07	.4468E+01	-.4806E+02	.1089E+01
41	.1945E+03	.1922E+02	.6794E+01	.2138E-07	-.4109E+01	.3343E+01	.6299E-07	.3607E+01	-.5027E+02	.1088E+01
42	.1864E+03	.1896E+02	.6779E+01	.2221E-07	-.3024E+01	.4288E+01	.6458E-07	.6504E+01	-.7087E+02	.1087E+01
43	.1335E+03	.1846E+02	.6724E+01	.3086E-07	-.2330E+01	.3005E+01	.8837E-07	.7244E+01	-.6663E+02	.1085E+01
44	.1266E+03	.1796E+02	.6671E+01	.3115E-07	-.2293E+01	.2841E+01	.8769E-07	.6541E+01	-.6330E+02	.1083E+01
45	.1228E+03	.1746E+02	.6621E+01	.3836E-08	-.2247E+01	.2795E+01	.8422E-07	.5355E+01	-.6132E+02	.1081E+01
46	.1177E+03	.1696E+02	.6583E+01	.1212E-06	-.2281E+01	.2577E+01	.6289E-07	.6322E+01	-.5875E+02	.1078E+01
47	.1244E+03	.1646E+02	.6513E+01	-.5857E-07	-.2470E+01	.2677E+01	.5632E-07	.8923E+01	-.6005E+02	.1083E+01
48	.1119E+03	.1599E+02	.6440E+01	.6223E-07	-.3235E+01	.5789E+00	.8486E-07	.4881E+01	-.3545E+02	.1083E+01
49	.3032E+03	.1583E+02	.6426E+01	.1078E-07	-.8793E+01	-.8079E+00	.3365E-07	.3123E+01	-.3419E+02	.1081E+01
50	.7080E+03	.1577E+02	.6419E+01	.3624E-08	-.1741E+02	.1141E+02	.1526E-07	-.4172E+01	-.3794E+02	.1078E+01
51	.8018E+03	.1572E+02	.6439E+01	.3154E-08	-.6900E+01	.2295E+02	.1619E-07	-.2622E+02	-.2897E+02	.1077E+01
52	.7983E+03	.1570E+02	.6485E+01	.3612E-08	.7536E+01	.2306E+02	.1692E-07	-.3316E+02	.4475E+01	.1076E+01
53	.6823E+03	.1573E+02	.6521E+01	.4690E-08	.1582E+02	.1390E+02	.1792E-07	-.1801E+02	.2730E+02	.1075E+01
54	.6081E+03	.1578E+02	.6538E+01	.5425E-08	.1868E+02	.3731E+01	.1678E-07	-.4721E+01	.3161E+02	.1074E+01
55	.3365E+03	.1583E+02	.6536E+01	.8974E-08	.9833E+01	-.3985E+01	.2631E-07	-.1309E+02	.3953E+02	.1073E+01
56	.1572E+03	.1601E+02	.6615E+01	.3369E-07	.5067E+01	-.4858E+00	.5993E-07	-.1283E+02	.3227E+02	.1072E+01
57	.1217E+03	.1624E+02	.6699E+01	-.2703E-07	.3983E+01	.5137E+00	.5581E-07	-.1011E+02	.2925E+02	.1069E+01
58	.1148E+03	.1649E+02	.6782E+01	.9223E-07	.3791E+01	.5953E+00	.5905E-07	-.8714E+01	.2893E+02	.1064E+01
59	.1126E+03	.1675E+02	.6851E+01	.1105E-07	.3753E+01	.2041E+00	.8929E-07	-.7128E+01	.2961E+02	.1061E+01
60	.8770E+02	.1702E+02	.6908E+01	.4198E-07	.2842E+01	-.7303E+00	.1221E-06	-.8291E+01	.3299E+02	.1056E+01
61	.6107E+02	.1750E+02	.7040E+01	.6431E-07	.2038E+01	.3525E-01	.1899E-06	-.7692E+01	.2983E+02	.1049E+01
62	.5885E+02	.1799E+02	.7160E+01	.6946E-07	.1964E+01	.2011E+00	.2097E-06	-.6776E+01	.2926E+02	.1041E+01
63	.5782E+02	.1849E+02	.7271E+01	.6972E-07	.1950E+01	.1945E+00	.2155E-06	-.6396E+01	.2901E+02	.1032E+01

64	.5707E+02	.1900E+02	.7381E+01	.6456E-07	.1962E+01	.8443E-01	.2052E-06	-.5464E+01	.2886E+02	.1022E+01
65	.5638E+02	.1951E+02	.7462E+01	.5379E-07	.1971E+01	-.1647E+00	.1779E-06	-.5248E+01	.2904E+02	.1013E+01
66	.4433E+02	.2003E+02	.7568E+01	.4758E-07	.1456E+01	-.6643E+00	.1681E-06	-.6453E+01	.3339E+02	.1004E+01
67	.2873E+02	.2101E+02	.7753E+01	.3930E-07	.1039E+01	-.1876E+00	.1605E-06	-.4275E+01	.2843E+02	.9982E+00
68	.2698E+02	.2201E+02	.7865E+01	.1233E-07	.1014E+01	-.9437E-01	.8295E-07	-.3270E+01	.2691E+02	.9950E+00
69	.2656E+02	.2301E+02	.7996E+01	-.5302E-08	.1008E+01	-.1059E+00	.2907E-07	-.2913E+01	.2664E+02	.9945E+00
70	.2695E+02	.2401E+02	.8085E+01	-.1039E-07	.1005E+01	-.1951E+00	.1031E-07	-.2685E+01	.2733E+02	.9957E+00
71	.2237E+02	.2503E+02	.8195E+01	-.8870E-08	.7085E+00	-.4406E+00	.2008E-07	-.3204E+01	.3356E+02	.9971E+00
72	.1486E+02	.2701E+02	.8371E+01	-.4682E-07	.5125E+00	-.1131E+00	.9786E-08	-.2121E+01	.2947E+02	.9981E+00
73	.1507E+02	.2900E+02	.8480E+01	0.	.5025E+00	0.	0.	-.1140E+01	.3000E+02	.9981E+00

SECOND INDEX= 8

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9721E+00	.9801E+00	.9998E+00	-.5655E-02	.9780E+00	.9998E+00	.9974E+00	.3514E+01	-.9998E+00	.5655E-02	-.3259E-02
2	.9720E+00	.9801E+00	.9998E+00	-.5656E-02	.9780E+00	.9998E+00	.9974E+00	.3514E+01	-.9998E+00	.5656E-02	-.3260E-02
3	.9693E+00	.9780E+00	.9997E+00	-.6228E-02	.9756E+00	.1000E+01	.9971E+00	.3515E+01	-.9997E+00	.6228E-02	-.3584E-02
4	.9629E+00	.9732E+00	.9997E+00	-.7533E-02	.9704E+00	.1000E+01	.9965E+00	.3518E+01	-.9997E+00	.7533E-02	-.4322E-02
5	.9528E+00	.9657E+00	.9996E+00	-.9634E-02	.9623E+00	.1001E+01	.9957E+00	.3522E+01	-.9998E+00	.2703E-01	-.5502E-02
6	.9392E+00	.9556E+00	.9996E+00	-.1250E-01	.9515E+00	.1001E+01	.9946E+00	.3530E+01	-.1000E+01	.4977E-01	-.7095E-02
7	.9229E+00	.9438E+00	.9998E+00	-.1596E-01	.9390E+00	.1001E+01	.9934E+00	.3539E+01	-.1001E+01	.5572E-01	-.8987E-02
8	.9061E+00	.9318E+00	.1000E+01	-.1963E-01	.9264E+00	.1000E+01	.9924E+00	.3550E+01	-.1001E+01	.5940E-01	-.1095E-01
9	.8915E+00	.9215E+00	.1001E+01	-.2290E-01	.9161E+00	.9995E+00	.9918E+00	.3562E+01	-.1001E+01	.6267E-01	-.1266E-01
10	.8828E+00	.9155E+00	.1002E+01	-.2490E-01	.9107E+00	.9988E+00	.9922E+00	.3571E+01	-.1002E+01	.6346E-01	-.1367E-01
11	.8841E+00	.9165E+00	.1003E+01	-.2467E-01	.9134E+00	.9989E+00	.9940E+00	.3574E+01	-.1003E+01	.6363E-01	-.1351E-01
12	.8995E+00	.9269E+00	.1004E+01	-.2131E-01	.9267E+00	.1000E+01	.9974E+00	.3568E+01	-.1003E+01	.6132E-01	-.1171E-01
13	.9319E+00	.9485E+00	.1005E+01	-.1430E-01	.9525E+00	.1003E+01	.1002E+01	.3550E+01	-.9957E+00	.5436E-01	-.7942E-02
14	.9821E+00	.9821E+00	.1006E+01	-.3786E-02	.9911E+00	.1007E+01	.1008E+01	.3521E+01	-.1003E+01	.4320E-01	-.2091E-02
15	.1048E+01	.1027E+01	.1006E+01	.9416E-02	.1041E+01	.1010E+01	.1014E+01	.3484E+01	-.1002E+01	.1506E-01	.5629E-02
16	.1126E+01	.1080E+01	.1005E+01	.2402E-01	.1099E+01	.1012E+01	.1020E+01	.3444E+01	-.1007E+01	-.2356E-01	.1472E-01
17	.1210E+01	.1137E+01	.1003E+01	.3858E-01	.1159E+01	.1011E+01	.1023E+01	.3405E+01	-.1005E+01	-.3889E-01	.2445E-01
18	.1291E+01	.1194E+01	.9998E+00	.5187E-01	.1218E+01	.1008E+01	.1025E+01	.3369E+01	-.1006E+01	-.5323E-01	.3398E-01
19	.1364E+01	.1244E+01	.9968E+00	.6289E-01	.1269E+01	.1004E+01	.1026E+01	.3339E+01	-.1019E+01	-.7186E-01	.4240E-01
20	.1418E+01	.1283E+01	.9940E+00	.7084E-01	.1307E+01	.1000E+01	.1025E+01	.3318E+01	-.1075E+01	-.1105E+00	.4877E-01
21	.1448E+01	.1306E+01	.9918E+00	.7507E-01	.1327E+01	.9964E+00	.1024E+01	.3306E+01	-.1060E+01	-.1061E+00	.5221E-01
22	.1452E+01	.1311E+01	.9908E+00	.7579E-01	.1330E+01	.9933E+00	.1022E+01	.3305E+01	-.1106E+01	-.1339E+00	.5269E-01
23	.1438E+01	.1305E+01	.9909E+00	.7411E-01	.1322E+01	.9911E+00	.1021E+01	.3312E+01	-.1002E+01	-.1943E-01	.5110E-01
24	.1423E+01	.1296E+01	.9917E+00	.7223E-01	.1313E+01	.9897E+00	.1020E+01	.3321E+01	-.1009E+01	-.5761E-01	.4932E-01
25	.1413E+01	.1291E+01	.9926E+00	.7106E-01	.1309E+01	.9887E+00	.1021E+01	.3329E+01	-.1003E+01	-.5942E-01	.4816E-01
26	.1409E+01	.1289E+01	.9932E+00	.7058E-01	.1307E+01	.9877E+00	.1021E+01	.3333E+01	-.9984E+00	-.5932E-01	.4766E-01
27	.1408E+01	.1289E+01	.9932E+00	.7047E-01	.1307E+01	.9866E+00	.1021E+01	.3335E+01	-.9942E+00	-.6156E-01	.4755E-01
28	.1408E+01	.1291E+01	.9931E+00	.7049E-01	.1308E+01	.9854E+00	.1020E+01	.3336E+01	-.9912E+00	-.4832E-01	.4762E-01
29	.1409E+01	.1292E+01	.9929E+00	.7054E-01	.1310E+01	.9843E+00	.1020E+01	.3336E+01	-.9910E+00	-.2924E-01	.4774E-01
30	.1411E+01	.1294E+01	.9928E+00	.7060E-01	.1311E+01	.9835E+00	.1020E+01	.3336E+01	-.9888E+00	-.3339E-01	.4787E-01
31	.1411E+01	.1295E+01	.9928E+00	.7061E-01	.1312E+01	.9828E+00	.1019E+01	.3337E+01	-.9926E+00	-.1126E-01	.4797E-01
32	.1412E+01	.1296E+01	.9929E+00	.7058E-01	.1313E+01	.9823E+00	.1019E+01	.3337E+01	-.9988E+00	.1156E-01	.4804E-01
33	.1412E+01	.1296E+01	.9929E+00	.7049E-01	.1313E+01	.9821E+00	.1019E+01	.3338E+01	-.9969E+00	.4397E-02	.4808E-01
34	.1412E+01	.1296E+01	.9930E+00	.7031E-01	.1313E+01	.9821E+00	.1020E+01	.3338E+01	-.1001E+01	.1558E-01	.4809E-01
35	.1412E+01	.1296E+01	.9930E+00	.7004E-01	.1313E+01	.9823E+00	.1020E+01	.3338E+01	-.1005E+01	.2440E-01	.4807E-01
36	.1412E+01	.1295E+01	.9929E+00	.6968E-01	.1312E+01	.9827E+00	.1019E+01	.3337E+01	-.1008E+01	.2881E-01	.4801E-01
37	.1411E+01	.1294E+01	.9928E+00	.6921E-01	.1311E+01	.9834E+00	.1019E+01	.3336E+01	-.1017E+01	.4490E-01	.4791E-01
38	.1410E+01	.1292E+01	.9925E+00	.6867E-01	.1309E+01	.9845E+00	.1019E+01	.3334E+01	-.1024E+01	.5557E-01	.4777E-01
39	.1408E+01	.1290E+01	.9922E+00	.6805E-01	.1305E+01	.9858E+00	.1019E+01	.3332E+01	-.1021E+01	.4585E-01	.4754E-01
40	.1404E+01	.1286E+01	.9918E+00	.6730E-01	.1301E+01	.9872E+00	.1018E+01	.3330E+01	-.1011E+01	.2757E-01	.4716E-01
41	.1399E+01	.1282E+01	.9915E+00	.6630E-01	.1296E+01	.9883E+00	.1018E+01	.3329E+01	-.9845E+00	-.1345E-01	.4649E-01
42	.1389E+01	.1275E+01	.9913E+00	.6487E-01	.1287E+01	.9891E+00	.1017E+01	.3331E+01	-.1026E+01	.3849E-01	.4538E-01
43	.1375E+01	.1264E+01	.9910E+00	.6298E-01	.1276E+01	.9904E+00	.1016E+01	.3333E+01	-.1068E+01	.8926E-01	.4376E-01
44	.1358E+01	.1251E+01	.9905E+00	.6081E-01	.1260E+01	.9924E+00	.1014E+01	.3334E+01	-.1057E+01	.7761E-01	.4171E-01
45	.1338E+01	.1236E+01	.9898E+00	.5856E-01	.1243E+01	.9947E+00	.1012E+01	.3335E+01	-.1035E+01	.5269E-01	3945E-01
46	.1319E+01	.1221E+01	.9891E+00	.5636E-01	.1226E+01	.9968E+00	.1010E+01	.3337E+01	-.1063E+01	.8978E-01	.3721E-01
47	.1314E+01	.1212E+01	.9856E+00	.5423E-01	.1211E+01	.1004E+01	.1006E+01	.3318E+01	-.1136E+01	.1876E+00	.3666E-01
48	.1304E+01	.1203E+01	.9855E+00	.5285E-01	.1202E+01	.1006E+01	.1006E+01	.3318E+01	-.1027E+01	.1157E+00	.3550E-01
49	.1296E+01	.1199E+01	.9856E+00	.5199E-01	.1197E+01	.1006E+01	.1005E+01	.3322E+01	-.9878E+00	.3033E-02	.3456E-01
50	.1290E+01	.1196E+01	.9858E+00	.5120E-01	.1193E+01	.1004E+01	.1005E+01	.3327E+01	-.7334E+00	-.3730E+00	.3379E-01
51	.1283E+01	.1191E+01	.9862E+00	.4996E-01	.1189E+01	.1004E+01	.1005E+01	.3330E+01	-.1036E+00	-.9307E+00	.3297E-01
52	.1276E+01	.1186E+01	.9865E+00	.4863E-01	.1184E+01	.1004E+01	.1004E+01	.3333E+01	.3768E+00	-.9753E+00	.3219E-01

53	.1272E+01	.1184E+01	.9867E+00	.4789E-01	.1181E+01	.1004E+01	.1004E+01	.3336E+01	.7346E+00	-.5541E+00	.3166E-01
54	.1269E+01	.1183E+01	.9869E+00	.4779E-01	.1181E+01	.1003E+01	.1004E+01	.3339E+01	.9607E+00	-.1246E+00	.3138E-01
55	.1267E+01	.1182E+01	.9872E+00	.4751E-01	.1180E+01	.1002E+01	.1004E+01	.3342E+01	.1090E+01	-.2934E+00	.3111E-01
56	.1264E+01	.1180E+01	.9876E+00	.4691E-01	.1179E+01	.1002E+01	.1005E+01	.3344E+01	.1072E+01	-.3716E+00	.3079E-01
57	.1260E+01	.1179E+01	.9880E+00	.4648E-01	.1178E+01	.1000E+01	.1004E+01	.3349E+01	.1002E+01	-.2917E+00	.3031E-01
58	.1249E+01	.1176E+01	.9908E+00	.4627E-01	.1177E+01	.9957E+00	.1007E+01	.3368E+01	.9939E+00	-.2433E+00	.2903E-01
59	.1243E+01	.1173E+01	.9918E+00	.4556E-01	.1176E+01	.9948E+00	.1007E+01	.3375E+01	.1006E+01	-.1824E+00	.2838E-01
60	.1231E+01	.1165E+01	.9933E+00	.4379E-01	.1170E+01	.9939E+00	.1008E+01	.3385E+01	.1072E+01	-.2219E+00	.2696E-01
61	.1211E+01	.1152E+01	.9953E+00	.4069E-01	.1159E+01	.9932E+00	.1009E+01	.3401E+01	.1023E+01	-.2194E+00	.2463E-01
62	.1185E+01	.1135E+01	.9977E+00	.3643E-01	.1143E+01	.9928E+00	.1011E+01	.3420E+01	.1004E+01	-.1923E+00	.2156E-01
63	.1153E+01	.1113E+01	.1000E+01	.3107E-01	.1124E+01	.9927E+00	.1012E+01	.3441E+01	.1005E+01	-.1871E+00	.1788E-01
64	.1118E+01	.1088E+01	.1003E+01	.2471E-01	.1101E+01	.9930E+00	.1013E+01	.3465E+01	.1013E+01	-.1642E+00	.1375E-01
65	.1082E+01	.1063E+01	.1005E+01	.1775E-01	.1076E+01	.9934E+00	.1013E+01	.3487E+01	.1034E+01	-.1615E+00	.9519E-02
66	.1048E+01	.1039E+01	.1006E+01	.1085E-01	.1051E+01	.9940E+00	.1012E+01	.3507E+01	.1113E+01	-.2188E+00	.5607E-02
67	.1021E+01	.1019E+01	.1007E+01	.4858E-02	.1030E+01	.9945E+00	.1010E+01	.3520E+01	.1046E+01	-.1572E+00	.2435E-02
68	.1003E+01	.1006E+01	.1006E+01	.7323E-03	.1015E+01	.9951E+00	.1008E+01	.3526E+01	.1025E+01	-.1248E+00	.4055E-03
69	.9955E+00	.9998E+00	.1005E+01	-.1358E-02	.1006E+01	.9958E+00	.1005E+01	.3524E+01	.1022E+01	-.1127E+00	-.5192E-03
70	.9943E+00	.9983E+00	.1003E+01	-.1860E-02	.1002E+01	.9966E+00	.1003E+01	.3518E+01	.1027E+01	-.9919E-01	-.6602E-03
71	.9964E+00	.9993E+00	.1002E+01	-.1498E-02	.1001E+01	.9974E+00	.1002E+01	.3511E+01	.1068E+01	-.1187E+00	-.4247E-03
72	.9985E+00	.1001E+01	.1001E+01	-.1021E-02	.1001E+01	.9978E+00	.1001E+01	.3507E+01	.1020E+01	-.7685E-01	-.1770E-03
73	.9985E+00	.1001E+01	.1001E+01	-.1020E-02	.1001E+01	.9978E+00	.1001E+01	.3507E+01	.1002E+01	-.3713E-01	-.1769E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.6895E+01	.9000E+02	.8524E+01	0.	-.2500E+00	0.	0.	-.1901E-10	-.2758E+02	.9918E+00
2	.6895E+01	.8600E+02	.8524E+01	-.3305E-06	-.2500E+00	-.1613E-08	-.1174E-05	-.6663E-11	-.2758E+02	.9918E+00
3	.6895E+01	.8200E+02	.8524E+01	-.2706E-06	-.2500E+00	-.7392E-08	-.9619E-06	0.	-.2758E+02	.9911E+00
4	.6895E+01	.7800E+02	.8524E+01	-.2970E-06	-.2500E+00	-.2964E-07	-.1055E-05	.1960E-12	-.2758E+02	.9894E+00
5	.6895E+01	.7400E+02	.8524E+01	-.3321E-06	-.2500E+00	-.1143E-06	-.1176E-05	.4799E+00	-.2758E+02	.9867E+00
6	.7001E+01	.7000E+02	.8385E+01	-.3620E-06	-.2500E+00	-.4634E-06	-.1277E-05	.1044E+01	-.2800E+02	.9828E+00
7	.7129E+01	.6600E+02	.8226E+01	-.3810E-06	-.2500E+00	-.1980E-05	-.1337E-05	.1134E+01	-.2851E+02	.9778E+00
8	.7264E+01	.6200E+02	.8066E+01	-.3818E-06	-.2500E+00	-.8892E-05	-.1329E-05	.1155E+01	-.2906E+02	.9724E+00
9	.7408E+01	.5800E+02	.7907E+01	-.3592E-06	-.2500E+00	-.4210E-04	-.1235E-05	.1178E+01	-.2963E+02	.9674E+00
10	.7563E+01	.5400E+02	.7748E+01	-.3118E-06	-.2500E+00	-.2114E-03	-.1053E-05	.1165E+01	-.3025E+02	.9642E+00
11	.7723E+01	.5000E+02	.7599E+01	-.2426E-06	-.2500E+00	-.1127E-02	-.7936E-06	.1200E+01	-.3088E+02	.9647E+00
12	.7907E+01	.4600E+02	.7438E+01	-.1574E-06	-.2501E+00	-.6591E-02	-.4802E-06	.1260E+01	-.3158E+02	.9705E+00
13	.9325E+01	.4201E+02	.7281E+01	-.5640E-07	-.2837E+00	-.5434E-01	-.1267E-06	.1282E+01	-.3262E+02	.9825E+00
14	.1100E+02	.3901E+02	.7163E+01	.1952E-07	-.3326E+00	-.2859E-01	.1330E-06	.1291E+01	-.3295E+02	.9999E+00
15	.1386E+02	.3602E+02	.7046E+01	.6580E-07	-.3971E+00	-.1194E+00	.2812E-06	.8249E+00	-.3465E+02	.1021E+01
16	.1683E+02	.3401E+02	.7044E+01	.8976E-07	-.4980E+00	-.3944E-01	.3522E-06	.1798E-01	-.3379E+02	.1043E+01
17	.1701E+02	.3200E+02	.7044E+01	.1165E-06	-.5002E+00	-.2707E-01	.4388E-06	-.8733E-02	-.3400E+02	.1064E+01
18	.1735E+02	.3001E+02	.7045E+01	.1341E-06	-.5022E+00	-.5361E-01	.4927E-06	-.3624E-01	-.3454E+02	.1082E+01
19	.1847E+02	.2802E+02	.7048E+01	.1394E-06	-.5062E+00	-.1658E+00	.5037E-06	-.1938E+00	-.3656E+02	.1096E+01
20	.3364E+02	.2605E+02	.7066E+01	.8341E-07	-.6745E+00	-.7262E+00	.2980E-06	-.2046E+00	-.5009E+02	.1105E+01
21	.4550E+02	.2504E+02	.7060E+01	.6723E-07	-.1009E+01	-.8460E+00	.2385E-06	-.2672E+00	-.4531E+02	.1109E+01
22	.1042E+03	.2406E+02	.7077E+01	.3263E-07	-.1568E+01	-.2625E+01	.1153E-06	.4243E+00	-.6573E+02	.1107E+01
23	.1415E+03	.2378E+02	.7052E+01	.2636E-07	-.3599E+01	-.1958E+01	.9285E-07	.2175E+01	-.3814E+02	.1102E+01
24	.1365E+03	.2352E+02	.7047E+01	.2836E-07	-.3832E+01	-.1165E+01	.9938E-07	.6014E+00	-.3544E+02	.1098E+01
25	.1357E+03	.2326E+02	.7043E+01	.2914E-07	-.3889E+01	-.6910E+00	.1018E-06	.4357E+00	-.3481E+02	.1095E+01
26	.1372E+03	.2301E+02	.7040E+01	.2953E-07	-.3916E+01	-.3422E+00	.1031E-06	.4026E+00	-.3499E+02	.1093E+01
27	.1386E+03	.2275E+02	.7037E+01	.3024E-07	-.3934E+01	-.6111E-01	.1057E-06	.3163E+00	-.3523E+02	.1092E+01
28	.1399E+03	.2250E+02	.7036E+01	.3107E-07	-.3948E+01	.1726E+00	.1088E-06	.7955E+00	-.3547E+02	.1091E+01
29	.1416E+03	.2224E+02	.7026E+01	.3164E-07	-.3966E+01	.3813E+00	.1108E-06	.1500E+01	-.3583E+02	.1091E+01
30	.1432E+03	.2199E+02	.7014E+01	.3195E-07	-.3980E+01	.5743E+00	.1117E-06	.1375E+01	-.3617E+02	.1090E+01
31	.1448E+03	.2174E+02	.7007E+01	.3201E-07	-.4003E+01	.7320E+00	.1115E-06	.2198E+01	-.3658E+02	.1090E+01
32	.1463E+03	.2149E+02	.6984E+01	.3180E-07	-.4033E+01	.9265E+00	.1099E-06	.3039E+01	-.3697E+02	.1090E+01
33	.1464E+03	.2123E+02	.6965E+01	.3164E-07	-.4041E+01	.1096E+01	.1081E-06	.2781E+01	-.3699E+02	.1090E+01
34	.1426E+03	.2098E+02	.6946E+01	.3221E-07	-.4062E+01	.1255E+01	.1085E-06	.3081E+01	-.3607E+02	.1090E+01
35	.1392E+03	.2073E+02	.6922E+01	.3267E-07	-.4086E+01	.1439E+01	.1081E-06	.3274E+01	-.3522E+02	.1090E+01
36	.1360E+03	.2047E+02	.6899E+01	.3297E-07	-.4106E+01	.1615E+01	.1068E-06	.3311E+01	-.3443E+02	.1090E+01
37	.1340E+03	.2022E+02	.6873E+01	.3293E-07	-.4135E+01	.1818E+01	.1041E-06	.3714E+01	-.3404E+02	.1090E+01
38	.1259E+03	.1997E+02	.6844E+01	.3430E-07	-.4158E+01	.2060E+01	.1054E-06	.3743E+01	-.3214E+02	.1091E+01
39	.1205E+03	.1971E+02	.6814E+01	.3496E-07	-.4163E+01	.2360E+01	.1041E-06	.3277E+01	-.3081E+02	.1091E+01
40	.1190E+03	.1946E+02	.6789E+01	.3474E-07	-.4129E+01	.2724E+01	.1006E-06	.2748E+01	-.3063E+02	.1092E+01
41	.1199E+03	.1920E+02	.6768E+01	.3383E-07	-.3980E+01	.3342E+01	.9627E-07	.1802E+01	-.3163E+02	.1091E+01
42	.1128E+03	.1893E+02	.6759E+01	.3599E-07	-.2961E+01	.4134E+01	.1017E-06	.3691E+01	-.4324E+02	.1090E+01

43	.8294E+02	.1843E+02	.6702E+01	.4879E-07	-.2337E+01	.2990E+01	.1368E-06	.4598E+01	-.4138E+02	.1088E+01
44	.7852E+02	.1793E+02	.6648E+01	.4962E-07	-.2295E+01	.2833E+01	.1379E-06	.4099E+01	-.3928E+02	.1085E+01
45	.7596E+02	.1743E+02	.6598E+01	.7254E-08	-.2251E+01	.2782E+01	.1347E-06	.3373E+01	-.3791E+02	.1083E+01
46	.7309E+02	.1693E+02	.6560E+01	.1895E-06	-.2290E+01	.2578E+01	.1020E-06	.3999E+01	-.3642E+02	.1080E+01
47	.7812E+02	.1643E+02	.6489E+01	-.8595E-07	-.2553E+01	.2665E+01	.9233E-07	.6060E+01	-.3692E+02	.1084E+01
48	.7472E+02	.1599E+02	.6404E+01	.9058E-07	-.3433E+01	.8781E+00	.1278E-06	.3694E+01	-.2271E+02	.1084E+01
49	.1839E+03	.1582E+02	.6390E+01	.1710E-07	-.8385E+01	.1934E+01	.5463E-07	.1238E+01	-.2222E+02	.1082E+01
50	.3380E+03	.1574E+02	.6391E+01	.7940E-08	-.1067E+02	.1204E+02	.3177E-07	-.6699E+01	-.2413E+02	.1079E+01
51	.3529E+03	.1568E+02	.6429E+01	.7852E-08	-.2405E+01	.1695E+02	.3290E-07	-.1870E+02	-.1498E+02	.1077E+01
52	.3378E+03	.1566E+02	.6497E+01	.8576E-08	.5516E+01	.1575E+02	.3333E-07	-.2019E+02	.3593E+01	.1076E+01
53	.3042E+03	.1570E+02	.6549E+01	.9905E-08	.1072E+02	.1092E+02	.3564E-07	-.1195E+02	.1620E+02	.1074E+01
54	.2750E+03	.1577E+02	.6575E+01	.1167E-07	.1327E+02	.4573E+01	.3673E-07	-.3420E+01	.1954E+02	.1073E+01
55	.1683E+03	.1585E+02	.6574E+01	.1826E-07	.8575E+01	-.1461E+01	.5386E-07	-.6748E+01	.2077E+02	.1072E+01
56	.9555E+02	.1601E+02	.6656E+01	.5556E-07	.5090E+01	.3737E-02	.9857E-07	-.7956E+01	.1877E+02	.1071E+01
57	.7480E+02	.1624E+02	.6740E+01	-.4374E-07	.4028E+01	.6069E+00	.9264E-07	-.6252E+01	.1763E+02	.1068E+01
58	.6897E+02	.1648E+02	.6823E+01	.1559E-06	.3762E+01	.6111E+00	.1056E-06	-.5261E+01	.1748E+02	.1062E+01
59	.6596E+02	.1674E+02	.6893E+01	.2109E-07	.3633E+01	.2288E+00	.1607E-06	-.4154E+01	.1789E+02	.1060E+01
60	.5205E+02	.1703E+02	.6949E+01	.7403E-07	.2803E+01	-.5967E+00	.2170E-06	-.4922E+01	.1962E+02	.1057E+01
61	.3739E+02	.1750E+02	.7082E+01	.1095E-06	.2062E+01	.6001E-01	.3250E-06	-.4731E+01	.1800E+02	.1051E+01
62	.3566E+02	.1799E+02	.7202E+01	.1196E-06	.1969E+01	.2093E+00	.3624E-06	-.4115E+01	.1767E+02	.1044E+01
63	.3478E+02	.1849E+02	.7313E+01	.1223E-06	.1945E+01	.1973E+00	.3789E-06	-.3870E+01	.1749E+02	.1036E+01
64	.3406E+02	.1900E+02	.7424E+01	.1168E-06	.1946E+01	.8541E-01	.3720E-06	-.3289E+01	.1736E+02	.1027E+01
65	.3311E+02	.1951E+02	.7506E+01	.1033E-06	.1932E+01	-.1575E+00	.3412E-06	-.3053E+01	.1739E+02	.1018E+01
66	.2607E+02	.2005E+02	.7609E+01	.9875E-07	.1444E+01	-.6224E+00	.3448E-06	-.3816E+01	.1969E+02	.1009E+01
67	.1718E+02	.2102E+02	.7799E+01	.9409E-07	.1046E+01	-.1810E+00	.3629E-06	-.2608E+01	.1687E+02	.1002E+01
68	.1598E+02	.2201E+02	.7912E+01	.4765E-07	.1015E+01	-.9237E-01	.2297E-06	-.1955E+01	.1591E+02	.9975E+00
69	.1564E+02	.2301E+02	.8043E+01	.1041E-07	.1006E+01	-.1052E+00	.1140E-06	-.1712E+01	.1572E+02	.9958E+00
70	.1576E+02	.2402E+02	.8131E+01	-.7842E-08	.9948E+00	-.1938E+00	.5014E-07	-.1508E+01	.1614E+02	.9960E+00
71	.1313E+02	.2506E+02	.8235E+01	-.1220E-07	.7065E+00	-.4260E+00	.4236E-07	-.1856E+01	.1971E+02	.9971E+00
72	.8946E+01	.2702E+02	.8414E+01	-.7271E-07	.5157E+00	-.1115E+00	.2764E-07	-.1284E+01	.1763E+02	.9980E+00
73	.9149E+01	.2900E+02	.8522E+01	0.	.5042E+00	-.1040E-11	0.	-.6546E+00	.1815E+02	.9980E+00

SECOND INDEX= 9

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9710E+00	.9790E+00	.9996E+00	-.5880E-02	.9767E+00	.1000E+01	.9971E+00	.3513E+01	-.9996E+00	.5880E-02	-.3381E-02
2	.9710E+00	.9790E+00	.9996E+00	-.5881E-02	.9767E+00	.1000E+01	.9971E+00	.3513E+01	-.9996E+00	.5881E-02	-.3381E-02
3	.9682E+00	.9770E+00	.9996E+00	-.6454E-02	.9744E+00	.1000E+01	.9968E+00	.3514E+01	-.9996E+00	.6454E-02	-.3706E-02
4	.9619E+00	.9723E+00	.9995E+00	-.7762E-02	.9692E+00	.1000E+01	.9962E+00	.3517E+01	-.9995E+00	.7762E-02	-.4445E-02
5	.9517E+00	.9648E+00	.9995E+00	-.9872E-02	.9611E+00	.1001E+01	.9954E+00	.3522E+01	-.9996E+00	.2718E-01	-.5629E-02
6	.9380E+00	.9549E+00	.9995E+00	-.1276E-01	.9504E+00	.1001E+01	.9943E+00	.3530E+01	-.1000E+01	.4983E-01	-.7230E-02
7	.9217E+00	.9431E+00	.9997E+00	-.1625E-01	.9380E+00	.1000E+01	.9931E+00	.3540E+01	-.1000E+01	.5579E-01	-.9135E-02
8	.9046E+00	.9310E+00	.1000E+01	-.1997E-01	.9254E+00	.9999E+00	.9922E+00	.3552E+01	-.1001E+01	.5952E-01	-.1112E-01
9	.8897E+00	.9205E+00	.1001E+01	-.2330E-01	.9150E+00	.9991E+00	.9917E+00	.3564E+01	-.1002E+01	.6286E-01	-.1286E-01
10	.8807E+00	.9142E+00	.1002E+01	-.2539E-01	.9095E+00	.9985E+00	.9923E+00	.3573E+01	-.1002E+01	.6373E-01	-.1391E-01
11	.8816E+00	.9147E+00	.1003E+01	-.2526E-01	.9119E+00	.9988E+00	.9942E+00	.3577E+01	-.1003E+01	.6401E-01	-.1381E-01
12	.8965E+00	.9246E+00	.1004E+01	-.2200E-01	.9249E+00	.1000E+01	.9978E+00	.3571E+01	-.1004E+01	.6176E-01	-.1207E-01
13	.9283E+00	.9458E+00	.1006E+01	-.1508E-01	.9503E+00	.1004E+01	.1003E+01	.3553E+01	-.9963E+00	.5490E-01	-.8364E-02
14	.9780E+00	.9792E+00	.1006E+01	-.4612E-02	.9887E+00	.1007E+01	.1009E+01	.3525E+01	-.1003E+01	.4370E-01	-.2567E-02
15	.1044E+01	.1024E+01	.1006E+01	.8595E-02	.1039E+01	.1010E+01	.1015E+01	.3488E+01	-.1002E+01	.1573E-01	.5123E-02
16	.1122E+01	.1077E+01	.1005E+01	.2326E-01	.1096E+01	.1011E+01	.1020E+01	.3448E+01	-.1007E+01	-.2258E-01	.1422E-01
17	.1206E+01	.1135E+01	.1003E+01	.3793E-01	.1158E+01	.1010E+01	.1024E+01	.3409E+01	-.1005E+01	-.3845E-01	.2400E-01
18	.1288E+01	.1192E+01	.1000E+01	.5140E-01	.1217E+01	.1008E+01	.1026E+01	.3372E+01	-.1006E+01	-.5337E-01	.3363E-01
19	.1362E+01	.1243E+01	.9971E+00	.6264E-01	.1268E+01	.1004E+01	.1026E+01	.3341E+01	-.1020E+01	-.7438E-01	.4219E-01
20	.1418E+01	.1283E+01	.9942E+00	.7085E-01	.1307E+01	.1000E+01	.1026E+01	.3318E+01	-.1075E+01	-.1120E+00	.4873E-01
21	.1449E+01	.1306E+01	.9919E+00	.7534E-01	.1328E+01	.9970E+00	.1024E+01	.3305E+01	-.1062E+01	-.1098E+00	.5236E-01
22	.1454E+01	.1312E+01	.9907E+00	.7627E-01	.1331E+01	.9945E+00	.1022E+01	.3303E+01	-.1095E+01	-.1237E+00	.5300E-01
23	.1442E+01	.1306E+01	.9907E+00	.7470E-01	.1323E+01	.9926E+00	.1021E+01	.3309E+01	-.9903E+00	.7753E-02	.5153E-01
24	.1427E+01	.1297E+01	.9916E+00	.7283E-01	.1315E+01	.9915E+00	.1021E+01	.3318E+01	-.1007E+01	-.5091E-01	.4979E-01
25	.1417E+01	.1291E+01	.9926E+00	.7160E-01	.1310E+01	.9906E+00	.1021E+01	.3325E+01	-.1003E+01	-.5912E-01	.4859E-01
26	.1412E+01	.1289E+01	.9932E+00	.7104E-01	.1308E+01	.9895E+00	.1022E+01	.3330E+01	-.9986E+00	-.6066E-01	.4801E-01
27	.1410E+01	.1289E+01	.9933E+00	.7086E-01	.1308E+01	.9884E+00	.1021E+01	.3332E+01	-.9943E+00	-.6285E-01	.4784E-01
28	.1411E+01	.1290E+01	.9932E+00	.7084E-01	.1309E+01	.9872E+00	.1021E+01	.3333E+01	-.9912E+00	-.4972E-01	.4787E-01
29	.1412E+01	.1292E+01	.9930E+00	.7088E-01	.1310E+01	.9861E+00	.1021E+01	.3334E+01	-.9908E+00	-.3086E-01	.4800E-01
30	.1413E+01	.1294E+01	.9929E+00	.7094E-01	.1311E+01	.9853E+00	.1020E+01	.3334E+01	-.9885E+00	-.3487E-01	.4814E-01
31	.1414E+01	.1295E+01	.9928E+00	.7097E-01	.1313E+01	.9846E+00	.1020E+01	.3334E+01	-.9923E+00	-.1249E-01	.4826E-01

32	.1415E+01	.1296E+01	.9928E+00	.7096E-01	.1313E+01	.9842E+00	.1020E+01	.3334E+01	-.9986E+00	.1065E-01	.4836E-01
33	.1415E+01	.1296E+01	.9928E+00	.7089E-01	.1314E+01	.9842E+00	.1020E+01	.3334E+01	-.9973E+00	.5959E-02	.4845E-01
34	.1416E+01	.1297E+01	.9927E+00	.7073E-01	.1314E+01	.9843E+00	.1020E+01	.3333E+01	-.1002E+01	.1932E-01	.4851E-01
35	.1416E+01	.1296E+01	.9926E+00	.7049E-01	.1313E+01	.9848E+00	.1020E+01	.3332E+01	-.1007E+01	.2798E-01	.4854E-01
36	.1416E+01	.1296E+01	.9923E+00	.7016E-01	.1313E+01	.9855E+00	.1020E+01	.3330E+01	-.1009E+01	.3182E-01	.4855E-01
37	.1416E+01	.1295E+01	.9920E+00	.6974E-01	.1311E+01	.9864E+00	.1019E+01	.3328E+01	-.1020E+01	.5142E-01	.4851E-01
38	.1415E+01	.1293E+01	.9916E+00	.6926E-01	.1309E+01	.9876E+00	.1019E+01	.3325E+01	-.1029E+01	.6435E-01	.4841E-01
39	.1413E+01	.1291E+01	.9911E+00	.6872E-01	.1305E+01	.9890E+00	.1018E+01	.3323E+01	-.1022E+01	.4863E-01	.4822E-01
40	.1410E+01	.1287E+01	.9906E+00	.6804E-01	.1301E+01	.9903E+00	.1018E+01	.3320E+01	-.1006E+01	.2078E-01	.4784E-01
41	.1404E+01	.1283E+01	.9903E+00	.6707E-01	.1295E+01	.9912E+00	.1017E+01	.3320E+01	-.9629E+00	-.4208E-01	.4714E-01
42	.1394E+01	.1276E+01	.9901E+00	.6563E-01	.1287E+01	.9917E+00	.1016E+01	.3322E+01	-.1009E+01	.1978E-01	.4598E-01
43	.1380E+01	.1265E+01	.9899E+00	.6378E-01	.1275E+01	.9926E+00	.1015E+01	.3324E+01	-.1070E+01	.9393E-01	.4431E-01
44	.1362E+01	.1252E+01	.9894E+00	.6171E-01	.1261E+01	.9941E+00	.1013E+01	.3327E+01	-.1056E+01	.7881E-01	.4226E-01
45	.1343E+01	.1238E+01	.9880E+00	.5957E-01	.1244E+01	.9960E+00	.1011E+01	.3329E+01	-.1036E+01	.5529E-01	.4003E-01
46	.1325E+01	.1224E+01	.9883E+00	.5745E-01	.1228E+01	.9977E+00	.1010E+01	.3331E+01	-.1066E+01	.9555E-01	.3786E-01
47	.1320E+01	.1216E+01	.9851E+00	.5540E-01	.1215E+01	.1004E+01	.1006E+01	.3314E+01	-.1162E+01	.2235E+00	.3737E-01
48	.1311E+01	.1208E+01	.9851E+00	.5406E-01	.1206E+01	.1006E+01	.1006E+01	.3314E+01	-.1063E+01	.1587E+00	.3625E-01
49	.1302E+01	.1202E+01	.9853E+00	.5306E-01	.1200E+01	.1006E+01	.1005E+01	.3319E+01	-.9333E+00	-.9645E-01	.3519E-01
50	.1293E+01	.1198E+01	.9857E+00	.5177E-01	.1195E+01	.1004E+01	.1005E+01	.3325E+01	-.5030E+00	-.5999E+00	.3413E-01
51	.1283E+01	.1191E+01	.9861E+00	.4995E-01	.1189E+01	.1004E+01	.1004E+01	.3330E+01	.3669E-01	-.1005E+01	.3296E-01
52	.1273E+01	.1185E+01	.9866E+00	.4814E-01	.1182E+01	.1004E+01	.1004E+01	.3335E+01	.3871E+00	-.9648E+00	.3186E-01
53	.1267E+01	.1181E+01	.9870E+00	.4706E-01	.1178E+01	1004E+01	.1004E+01	.3339E+01	.6828E+00	-.6050E+00	.3108E-01
54	.1262E+01	.1179E+01	.9873E+00	.4670E-01	.1177E+01	.1002E+01	.1004E+01	.3344E+01	.9220E+00	-.1940E+00	.3058E-01
55	.1258E+01	.1177E+01	.9878E+00	.4614E-01	.1175E+01	.1001E+01	.1004E+01	.3347E+01	.1015E+01	-.2708E+00	.3011E-01
56	.1254E+01	.1174E+01	.9882E+00	.4520E-01	.1172E+01	.1002E+01	.1004E+01	.3351E+01	.1032E+01	-.3799E+00	.2957E-01
57	.1248E+01	.1171E+01	.9887E+00	.4447E-01	.1170E+01	.1000E+01	.1004E+01	.3356E+01	.9924E+00	-.3006E+00	.2892E-01
58	.1236E+01	.1168E+01	.9915E+00	.4418E-01	.1169E+01	.9953E+00	.1006E+01	.3376E+01	.9905E+00	-.2447E+00	.2756E-01
59	.1233E+01	.1166E+01	.9923E+00	.4372E-01	.1169E+01	.9945E+00	.1007E+01	.3381E+01	.1003E+01	-.1732E+00	.2712E-01
60	.1224E+01	.1160E+01	.9935E+00	.4246E-01	.1165E+01	.9938E+00	.1008E+01	.3389E+01	.1053E+01	-.2151E+00	.2610E-01
61	.1209E+01	.1151E+01	.9952E+00	.4012E-01	.1157E+01	.9932E+00	.1009E+01	.3401E+01	.1020E+01	-.2261E+00	.2434E-01
62	.1188E+01	.1137E+01	.9972E+00	.3680E-01	.1145E+01	.9929E+00	.1010E+01	.3416E+01	.1002E+01	-.1938E+00	.2194E-01
63	.1162E+01	.1119E+01	.9995E+00	.3242E-01	.1129E+01	.9928E+00	.1011E+01	.3435E+01	.1004E+01	-.1870E+00	.1891E-01
64	.1132E+01	.1098E+01	.1002E+01	.2695E-01	.1109E+01	.9930E+00	.1012E+01	.3455E+01	.1012E+01	-.1624E+00	.1534E-01
65	.1098E+01	.1074E+01	.1004E+01	.2058E-01	.1086E+01	.9936E+00	.1012E+01	.3476E+01	.1030E+01	-.1512E+00	.1142E-01
66	.1065E+01	.1050E+01	.1005E+01	.1384E-01	.1062E+01	.9942E+00	.1012E+01	.3495E+01	.1102E+01	-.2117E+00	.7525E-02
67	.1035E+01	.1029E+01	.1006E+01	.7581E-02	.1039E+01	.9948E+00	.1010E+01	.3509E+01	.1045E+01	-.1611E+00	.4104E-02
68	.1014E+01	.1013E+01	.1005E+01	.2799E-02	.1022E+01	.9954E+00	.1008E+01	.3517E+01	.1024E+01	-.1251E+00	.1629E-02
69	.1002E+01	.1004E+01	.1004E+01	-.1162E-03	.1010E+01	.9961E+00	.1005E+01	.3519E+01	.1022E+01	-.1106E+00	.1940E-03
70	.9967E+00	.9999E+00	.1003E+01	-.1351E-02	.1004E+01	.9968E+00	.1003E+01	.3516E+01	.1024E+01	-.9047E-01	-.3810E-03
71	.9964E+00	.9992E+00	.1002E+01	-.1459E-02	.1001E+01	.9975E+00	.1001E+01	.3510E+01	.1062E+01	-.1136E+00	-.4166E-03
72	.9977E+00	.9998E+00	.1001E+01	-.1161E-02	.1001E+01	.9979E+00	.1001E+01	.3507E+01	.1020E+01	-.7788E-01	-.2711E-03
73	.9977E+00	.9998E+00	.1001E+01	-.1161E-02	.1001E+01	.9979E+00	.1001E+01	.3507E+01	.1001E+01	-.3371E-01	-.2710E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.4469E+01	.9000E+02	.8480E+01	0.	-.2500E+00	-.2032E-11	0.	-.1727E-10	-.1788E+02	.9918E+00
2	.4469E+01	.8600E+02	.8480E+01	-.5150E-06	-.2500E+00	-.1607E-08	-.1839E-05	-.6224E-11	-.1788E+02	.9918E+00
3	.4469E+01	.8200E+02	.8480E+01	-.4208E-06	-.2500E+00	-.7376E-08	-.1503E-05	-.3811E-12	-.1788E+02	.9911E+00
4	.4469E+01	.7800E+02	.8480E+01	-.4602E-06	-.2500E+00	-.2960E-07	-.1641E-05	.1270E-12	-.1788E+02	.9893E+00
5	.4469E+01	.7400E+02	.8480E+01	-.5129E-06	-.2500E+00	-.1142E-06	-.1822E-05	.3095E+00	-.1788E+02	.9864E+00
6	.4549E+01	.7000E+02	.8341E+01	-.5562E-06	-.2500E+00	-.4634E-06	-.1966E-05	.6749E+00	-.1819E+02	.9823E+00
7	.4645E+01	.6600E+02	.8183E+01	-.5832E-06	-.2500E+00	-.1980E-05	-.2047E-05	.7350E+00	-.1858E+02	.9773E+00
8	.4748E+01	.6200E+02	.8025E+01	-.5833E-06	-.2500E+00	-.8893E-05	-.2028E-05	.7510E+00	-.1899E+02	.9717E+00
9	.4857E+01	.5800E+02	.7867E+01	-.5486E-06	-.2500E+00	-.4210E-04	-.1883E-05	.7681E+00	-.1943E+02	.9666E+00
10	.4975E+01	.5400E+02	.7709E+01	-.4771E-06	-.2500E+00	-.2114E-03	-.1605E-05	.7617E+00	-.1990E+02	.9633E+00
11	.5097E+01	.5000E+02	.7560E+01	-.3729E-06	-.2500E+00	-.1127E-02	-.1213E-05	.7877E+00	-.2038E+02	.9638E+00
12	.5242E+01	.4600E+02	.7399E+01	-.2438E-06	-.2504E+00	-.6586E-02	-.7378E-06	.8289E+00	-.2092E+02	.9696E+00
13	.6197E+01	.4202E+02	.7244E+01	-.9005E-07	-.2839E+00	-.5342E-01	-.2003E-06	.8461E+00	-.2167E+02	.9815E+00
14	.7337E+01	.3901E+02	.7126E+01	.2593E-07	-.3328E+00	-.2851E-01	.1956E-06	.8531E+00	-.2197E+02	.9988E+00
15	.9248E+01	.3603E+02	.7012E+01	.9697E-07	-.3972E+00	-.1169E+00	.4222E-06	.5466E+00	-.2312E+02	.1020E+01
16	.1124E+02	.3401E+02	.7008E+01	.1336E-06	-.4969E+00	-.3938E-01	.5301E-06	.1678E-01	-.2261E+02	.1042E+01
17	.1140E+02	.3201E+02	.7009E+01	.1729E-06	-.5003E+00	-.2700E-01	.6569E-06	-.1049E-01	-.2278E+02	.1063E+01
18	.1167E+02	.3001E+02	.7010E+01	.1978E-06	-.5033E+00	-.5335E-01	.7315E-06	-.3859E-01	-.2319E+02	.1081E+01
19	.1248E+02	.2803E+02	.7015E+01	.2036E-06	-.5095E+00	-.1639E+00	.7395E-06	-.1966E+00	-.2456E+02	.1095E+01
20	.2232E+02	.2608E+02	.7041E+01	.1231E-06	-.6786E+00	-.7080E+00	.4411E-06	-.2049E+00	-.3310E+02	.1105E+01
21	.3048E+02	.2506E+02	.7034E+01	.9739E-07	-.1014E+01	-.8338E+00	.3456E-06	-.2691E+00	-.3028E+02	.1109E+01

22	.6676E+02	.2409E+02	.7059E+01	.4892E-07	-.1555E+01	-.2465E+01	.1723E-06	.3974E+00	-.4231E+02	.1109E+01
23	.9104E+02	.2380E+02	.7022E+01	.3896E-07	-.3421E+01	-.1917E+01	.1363E-06	.2100E+01	-.2544E+02	.1104E+01
24	.8972E+02	.2353E+02	.7013E+01	.4076E-07	-.3747E+01	-.1174E+01	.1414E-06	.5726E+00	-.2377E+02	.1100E+01
25	.8983E+02	.2327E+02	.7009E+01	.4130E-07	-.3834E+01	-.6945E+00	.1426E-06	.3129E+00	-.2338E+02	.1097E+01
26	.9102E+02	.2301E+02	.7006E+01	.4167E-07	-.3873E+01	-.3413E+00	.1431E-06	.2501E+00	-.2395E+02	.1095E+01
27	.9260E+02	.2275E+02	.7003E+01	.4251E-07	-.3900E+01	-.5703E-01	.1459E-06	.1915E+00	-.2374E+02	.1094E+01
28	.9370E+02	.2250E+02	.7002E+01	.4354E-07	-.3919E+01	.1783E+00	.1493E-06	.5114E+00	-.2393E+02	.1093E+01
29	.9493E+02	.2224E+02	.6993E+01	.4420E-07	-.3940E+01	.3884E+00	.1512E-06	.9814E+00	-.2419E+02	.1093E+01
30	.9615E+02	.2199E+02	.6981E+01	.4451E-07	-.3957E+01	.5818E+00	.1516E-06	.9009E+00	-.2443E+02	.1092E+01
31	.9731E+02	.2173E+02	.6974E+01	.4453E-07	-.3981E+01	.7437E+00	.1506E-06	.1464E+01	-.2472E+02	.1092E+01
32	.9817E+02	.2148E+02	.6951E+01	.4431E-07	-.4011E+01	.9365E+00	.1483E-06	.2039E+01	-.2495E+02	.1092E+01
33	.9819E+02	.2122E+02	.6932E+01	.4424E-07	-.4021E+01	.1107E+01	.1459E-06	.1923E+01	-.2495E+02	.1092E+01
34	.9505E+02	.2097E+02	.6912E+01	.4546E-07	-.4041E+01	.1269E+01	.1471E-06	.2161E+01	-.2420E+02	.1092E+01
35	.9210E+02	.2072E+02	.6887E+01	.4654E-07	-.4063E+01	.1454E+01	.1474E-06	.2269E+01	-.2348E+02	.1093E+01
36	.8946E+02	.2046E+02	.6863E+01	.4740E-07	-.4092E+01	.1634E+01	.1466E-06	.2266E+01	-.2282E+02	.1093E+01
37	.8752E+02	.2020E+02	.6836E+01	.4786E-07	-.4105E+01	.1842E+01	.1442E-06	.2509E+01	-.2248E+02	.1094E+01
38	.8109E+02	.1995E+02	.6804E+01	.5083E-07	-.4121E+01	.2093E+01	.1488E-06	.2606E+01	-.2100E+02	.1095E+01
39	.7665E+02	.1969E+02	.6772E+01	.5272E-07	-.4112E+01	.2407E+01	.1501E-06	.2170E+01	-.1991E+02	.1095E+01
40	.7512E+02	.1943E+02	.6747E+01	.5298E-07	-.4046E+01	.2806E+01	.1475E-06	.1675E+01	-.1973E+02	.1096E+01
41	.7414E+02	.1916E+02	.6727E+01	.5301E-07	-.3800E+01	.3400E+01	.1459E-06	.7490E+00	-.2018E+02	.1095E+01
42	.6752E+02	.1888E+02	.6727E+01	.5845E-07	-.2876E+01	.3918E+01	.1606E-06	.2016E+01	-.2622E+02	.1093E+01
43	.5159E+02	.1838E+02	.6668E+01	.7636E-07	-.2346E+01	.2962E+01	.2096E-06	.2953E+01	-.2573E+02	.1091E+01
44	.4880E+02	.1789E+02	.6612E+01	.7822E-07	-.2297E+01	.2818E+01	.2147E-06	.2593E+01	-.2443E+02	.1088E+01
45	.4706E+02	.1738E+02	.6561E+01	.1170E-07	-.2259E+01	.2758E+01	.2135E-06	.2151E+01	-.2346E+02	.1085E+01
46	.4570E+02	.1689E+02	.6521E+01	.2981E-06	-.2310E+01	.2587E+01	.1611E-06	.2593E+01	-.2269E+02	.1082E+01
47	.4934E+02	.1639E+02	.6488E+01	-.1294E-06	-.2672E+01	.2631E+01	.1473E-06	.4260E+01	-.2266E+02	.1086E+01
48	.5236E+02	.1597E+02	.6348E+01	.1258E-06	-.3696E+01	.1485E+01	.1835E-06	.2961E+01	-.1536E+02	.1085E+01
49	.1135E+03	.1580E+02	.6335E+01	.2700E-07	-.7180E+01	.4641E+01	.8765E-07	-.4645E+00	-.1551E+02	.1083E+01
50	.1602E+03	.1570E+02	.6356E+01	.1750E-07	-.5606E+01	.1095E+02	.6464E-07	-.7156E+01	-.1459E+02	.1079E+01
51	.1565E+03	.1562E+02	.6424E+01	.1817E-07	-.2233E+00	.1228E+02	.6585E-07	-.1261E+02	-.7378E+01	.1077E+01
52	.1477E+03	.1560E+02	.6518E+01	.1939E-07	.4049E+01	.1110E+02	.6684E-07	-.1235E+02	.2615E+01	.1075E+01
53	.1363E+03	.1566E+02	.6591E+01	.2139E-07	.7187E+01	.8519E+01	.7300E-07	-.7951E+01	.9541E+01	.1073E+01
54	.1250E+03	.1574E+02	.6634E+01	.2504E-07	.9164E+01	.4895E+01	.7923E-07	-.2935E+01	.1207E+02	.1071E+01
55	.8607E+02	.1585E+02	.6638E+01	.3597E-07	.7255E+01	.6230E+00	.1079E-06	-.3780E+01	.1154E+02	.1069E+01
56	.5801E+02	.1601E+02	.6722E+01	.9088E-07	.5028E+01	.6237E+00	.1640E-06	-.4901E+01	.1093E+02	.1068E+01
57	.4590E+02	.1623E+02	.6807E+01	-.6963E-07	.4019E+01	.7702E+00	.1540E-06	-.3873E+01	.1063E+02	.1065E+01
58	.4126E+02	.1647E+02	.6891E+01	.2599E-06	.3700E+01	.6594E+00	.1867E-06	-.3181E+01	.1058E+02	.1059E+01
59	.3825E+02	.1674E+02	.6961E+01	.4017E-07	.3470E+01	.2656E+00	.2889E-06	-.2395E+01	.1084E+02	.1057E+01
60	.3045E+02	.1704E+02	.7016E+01	.1320E-06	.2736E+01	-.3634E+00	.3908E-06	-.2881E+01	.1151E+02	.1055E+01
61	.2306E+02	.1750E+02	.7151E+01	.1860E-06	.2095E+01	.1019E+00	.5568E-06	-.2936E+01	.1087E+02	.1051E+01
62	.2169E+02	.1798E+02	.7271E+01	.2072E-06	.1976E+01	.2209E+00	.6319E-06	-.2515E+01	.1070E+02	.1045E+01
63	.2094E+02	.1848E+02	.7382E+01	.2174E-06	.1935E+01	.2010E+00	.6769E-06	-.2357E+01	.1057E+02	.1039E+01
64	.2028E+02	.1899E+02	.7496E+01	.2161E-06	.1921E+01	.8692E-01	.6901E-06	-.1991E+01	.1047E+02	.1031E+01
65	.1928E+02	.1951E+02	.7579E+01	.2047E-06	.1872E+01	-.1463E+00	.6760E-06	-.1761E+01	.1044E+02	.1022E+01
66	.1523E+02	.2008E+02	.7678E+01	.2112E-06	.1426E+01	-.5551E+00	.7296E-06	-.2255E+01	.1156E+02	.1014E+01
67	.1033E+02	.2103E+02	.7875E+01	.2244E-06	.1057E+01	-.1695E+00	.8289E-06	-.1621E+01	.1003E+02	.1006E+01
68	.9491E+01	.2202E+02	.7992E+01	.1505E-06	.1017E+01	-.8896E-01	.6203E-06	-.1183E+01	.9431E+01	.1001E+01
69	.9212E+01	.2302E+02	.8124E+01	.7593E-07	.1002E+01	-.1040E+00	.3873E-06	-.1006E+01	.9301E+01	.9977E+00
70	.9181E+01	.2404E+02	.8211E+01	.2509E-07	.9782E+00	-.1920E+00	.2132E-06	-.8179E+00	.9546E+01	.9968E+00
71	.7677E+01	.2510E+02	.8303E+01	.3026E-08	.7032E+00	-.4022E+00	.1488E-06	-.1058E+01	.1152E+02	.9972E+00
72	.5416E+01	.2704E+02	.8486E+01	-.4815E-07	.5208E+00	-.1089E+00	.2729E-06	-.7798E+00	.1056E+02	.9978E+00
73	.5581E+01	.2900E+02	.8590E+01	0.	.5069E+00	-.6345E-12	0.	-.3581E+00	.1101E+02	.9978E+00

SECOND INDEX= 10

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9694E+00	.9772E+00	.9994E+00	-.6230E-02	.9746E+00	.1001E+01	.9968E+00	.3512E+01	-.9994E+00	.6230E-02	-.3568E-02
2	.9694E+00	.9772E+00	.9994E+00	-.6231E-02	.9746E+00	.1001E+01	.9968E+00	.3512E+01	-.9994E+00	.6231E-02	-.3568E-02
3	.9666E+00	.9752E+00	.9993E+00	-.6804E-02	.9722E+00	.1001E+01	.9965E+00	.3513E+01	-.9993E+00	.6804E-02	-.3893E-02
4	.9603E+00	.9706E+00	.9992E+00	-.8116E-02	.9671E+00	.1001E+01	.9959E+00	.3516E+01	-.9992E+00	.8116E-02	-.4634E-02
5	.9501E+00	.9632E+00	.9992E+00	-.1024E-01	.9591E+00	.1001E+01	.9950E+00	.3521E+01	-.9993E+00	.2738E-01	-.5822E-02
6	.9363E+00	.9533E+00	.9992E+00	-.1315E-01	.9484E+00	.1001E+01	.9939E+00	.3529E+01	-.9999E+00	.4988E-01	-.7433E-02
7	.9198E+00	.9415E+00	.9995E+00	-.1668E-01	.9360E+00	.1001E+01	.9927E+00	.3540E+01	-.1000E+01	.5585E-01	-.9356E-02
8	.9025E+00	.9293E+00	.9999E+00	-.2047E-01	.9234E+00	.1000E+01	.9918E+00	.3552E+01	-.1001E+01	.5964E-01	-.1137E-01
9	.8872E+00	.9185E+00	.1001E+01	-.2389E-01	.9129E+00	.9993E+00	.9915E+00	.3565E+01	-.1001E+01	.6308E-01	-.1315E-01
10	.8776E+00	.9118E+00	.1002E+01	-.2611E-01	.9072E+00	.9988E+00	.9923E+00	.3575E+01	-.1003E+01	.6408E-01	-.1427E-01

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
11	.8779E+00	.9117E+00	.1003E+01	-.2614E-01	.9092E+00	.9991E+00	.9944E+00	.3580E+01	-.1004E+01	.6451E-01	-.1424E-01
12	.8919E+00	.9210E+00	.1005E+01	-.2304E-01	.9218E+00	.1001E+01	.9982E+00	.3575E+01	-.1004E+01	.6236E-01	-.1260E-01
13	.9229E+00	.9418E+00	.1006E+01	-.1625E-01	.9469E+00	.1004E+01	.1003E+01	.3558E+01	-.9970E+00	.5565E-01	-.8989E-02
14	.9719E+00	.9748E+00	.1007E+01	-.5656E-02	.9850E+00	.1007E+01	.1009E+01	.3530E+01	-.1004E+01	.4441E-01	-.3275E-02
15	.1037E+01	.1019E+01	.1007E+01	.7344E-02	.1035E+01	.1010E+01	.1015E+01	.3494E+01	-.1003E+01	.1671E-01	.4363E-02
16	.1115E+01	.1073E+01	.1006E+01	.2209E-01	.1093E+01	.1011E+01	.1021E+01	.3454E+01	-.1008E+01	-.2115E-01	.1346E-01
17	.1200E+01	.1131E+01	.1004E+01	.3693E-01	.1155E+01	.1010E+01	.1024E+01	.3414E+01	-.1006E+01	-.3779E-01	.2330E-01
18	.1284E+01	.1189E+01	.1001E+01	.5065E-01	.1215E+01	.1007E+01	.1026E+01	.3377E+01	-.1007E+01	-.5357E-01	.3307E-01
19	.1359E+01	.1242E+01	.9977E+00	.6223E-01	.1267E+01	.1004E+01	.1027E+01	.3345E+01	-.1021E+01	-.7794E-01	.4183E-01
20	.1417E+01	.1282E+01	.9946E+00	.7081E-01	.1307E+01	.1000E+01	.1026E+01	.3320E+01	-.1075E+01	-.1140E+00	.4862E-01
21	.1451E+01	.1307E+01	.9920E+00	.7569E-01	.1329E+01	.9976E+00	.1025E+01	.3305E+01	-.1064E+01	-.1148E+00	.5255E-01
22	.1458E+01	.1313E+01	.9906E+00	.7692E-01	.1333E+01	.9957E+00	.1023E+01	.3300E+01	-.1083E+01	-.1112E+00	.5346E-01
23	.1447E+01	.1307E+01	.9905E+00	.7554E-01	.1326E+01	.9945E+00	.1022E+01	.3304E+01	-.9752E+00	.4224E-01	.5219E-01
24	.1433E+01	.1299E+01	.9913E+00	.7369E-01	.1317E+01	.9937E+00	.1022E+01	.3312E+01	-.1005E+01	-.4076E-01	.5050E-01
25	.1422E+01	.1293E+01	.9924E+00	.7237E-01	.1312E+01	.9930E+00	.1022E+01	.3320E+01	-.1003E+01	-.5876E-01	.4924E-01
26	.1416E+01	.1290E+01	.9931E+00	.7167E-01	.1310E+01	.9920E+00	.1022E+01	.3325E+01	-.9987E+00	-.6290E-01	.4855E-01
27	.1414E+01	.1289E+01	.9933E+00	.7139E-01	.1309E+01	.9909E+00	.1022E+01	.3328E+01	-.9942E+00	-.6493E-01	.4829E-01
28	.1414E+01	.1290E+01	.9932E+00	.7132E-01	.1310E+01	.9897E+00	.1022E+01	.3329E+01	-.9909E+00	-.5189E-01	.4827E-01
29	.1415E+01	.1292E+01	.9930E+00	.7133E-01	.1311E+01	.9888E+00	.1021E+01	.3329E+01	-.9904E+00	-.3332E-01	.4838E-01
30	.1416E+01	.1293E+01	.9928E+00	.7138E-01	.1312E+01	.9880E+00	.1021E+01	.3329E+01	-.9879E+00	-.3708E-01	.4854E-01
31	.1418E+01	.1295E+01	.9927E+00	.7142E-01	.1313E+01	.9875E+00	.1021E+01	.3329E+01	-.9917E+00	-.1418E-01	.4869E-01
32	.1419E+01	.1296E+01	.9925E+00	.7143E-01	.1314E+01	.9872E+00	.1021E+01	.3328E+01	-.9980E+00	.9620E-02	.4884E-01
33	.1420E+01	.1296E+01	.9924E+00	.7138E-01	.1314E+01	.9873E+00	.1020E+01	.3327E+01	-.9980E+00	.9080E-02	.4898E-01
34	.1421E+01	.1297E+01	.9921E+00	.7127E-01	.1314E+01	.9877E+00	.1020E+01	.3326E+01	-.1005E+01	.2622E-01	.4911E-01
35	.1422E+01	.1297E+01	.9918E+00	.7109E-01	.1314E+01	.9883E+00	.1020E+01	.3323E+01	-.1009E+01	.3470E-01	.4923E-01
36	.1423E+01	.1297E+01	.9914E+00	.7084E-01	.1313E+01	.9891E+00	.1020E+01	.3321E+01	-.1011E+01	.3759E-01	.4931E-01
37	.1423E+01	.1296E+01	.9909E+00	.7052E-01	.1311E+01	.9901E+00	.1019E+01	.3318E+01	-.1026E+01	.6333E-01	.4933E-01
38	.1423E+01	.1294E+01	.9904E+00	.7017E-01	.1309E+01	.9913E+00	.1019E+01	.3315E+01	-.1037E+01	.8021E-01	.4928E-01
39	.1421E+01	.1292E+01	.9898E+00	.6979E-01	.1306E+01	.9926E+00	.1018E+01	.3312E+01	-.1024E+01	.5323E-01	.4911E-01
40	.1418E+01	.1289E+01	.9892E+00	.6924E-01	.1302E+01	.9936E+00	.1017E+01	.3310E+01	-.9969E+00	.7992E-02	.4873E-01
41	.1412E+01	.1285E+01	.9889E+00	.6834E-01	.1296E+01	.9942E+00	.1016E+01	.3309E+01	-.9355E+00	-.7735E-01	.4800E-01
42	.1401E+01	.1278E+01	.9887E+00	.6693E-01	.1288E+01	.9944E+00	.1015E+01	.3312E+01	-.9917E+00	.8962E-03	.4679E-01
43	.1387E+01	.1268E+01	.9885E+00	.6514E-01	.1276E+01	.9943E+00	.1014E+01	.3315E+01	-.1074E+01	.1002E+00	.4511E-01
44	.1369E+01	.1255E+01	.9862E+00	.6319E-01	.1262E+01	.9959E+00	.1013E+01	.3318E+01	-.1057E+01	.8112E-01	.4308E-01
45	.1351E+01	.1242E+01	.9878E+00	.6117E-01	.1247E+01	.9973E+00	.1011E+01	.3322E+01	-.1039E+01	.5974E-01	.4093E-01
46	.1333E+01	.1229E+01	.9875E+00	.5915E-01	.1232E+01	.9986E+00	.1009E+01	.3325E+01	-.1076E+01	.1085E+00	.3887E-01
47	.1330E+01	.1222E+01	.9844E+00	.5715E-01	.1220E+01	.1004E+01	.1006E+01	.3309E+01	-.1194E+01	.2699E+00	.3844E-01
48	.1320E+01	.1214E+01	.9845E+00	.5571E-01	.1212E+01	.1006E+01	.1006E+01	.3310E+01	-.1117E+01	.1977E+00	.3726E-01
49	.1308E+01	.1207E+01	.9849E+00	.5429E-01	.1205E+01	.1005E+01	.1005E+01	.3316E+01	-.7577E+00	-.3043E+00	.3594E-01
50	.1295E+01	.1199E+01	.9855E+00	.5225E-01	.1197E+01	.1004E+01	.1005E+01	.3324E+01	-.2578E+00	-.8062E+00	.3443E-01
51	.1281E+01	.1190E+01	.9861E+00	.4967E-01	.1187E+01	.1004E+01	.1004E+01	.3331E+01	.1388E+00	-.1044E+01	.3276E-01
52	.1267E+01	.1181E+01	.9868E+00	.4720E-01	.1178E+01	.1004E+01	.1004E+01	.3338E+01	.3875E+00	-.9575E+00	.3118E-01
53	.1257E+01	.1174E+01	.9875E+00	.4550E-01	.1172E+01	.1003E+01	.1004E+01	.3344E+01	.6247E+00	-.6599E+00	.2996E-01
54	.1249E+01	.1171E+01	.9881E+00	.4457E-01	.1169E+01	.1002E+01	.1004E+01	.3352E+01	.8552E+00	-.2977E+00	.2906E-01
55	.1242E+01	.1167E+01	.9887E+00	.4351E-01	.1165E+01	.1001E+01	.1004E+01	.3357E+01	.9477E+00	-.2874E+00	.2822E-01
56	.1235E+01	.1162E+01	.9893E+00	.4210E-01	.1161E+01	.1001E+01	.1004E+01	.3362E+01	.9777E+00	-.3844E+00	.2735E-01
57	.1227E+01	.1157E+01	.9899E+00	.4093E-01	.1157E+01	.9995E+00	.1004E+01	.3369E+01	.9732E+00	-.3115E+00	.2642E-01
58	.1213E+01	.1152E+01	.9927E+00	.4031E-01	.1154E+01	.9948E+00	.1006E+01	.3389E+01	.9816E+00	-.2476E+00	.2487E-01
59	.1209E+01	.1150E+01	.9934E+00	.3975E-01	.1153E+01	.9942E+00	.1007E+01	.3394E+01	.9955E+00	-.1670E+00	.2439E-01
60	.1202E+01	.1146E+01	.9944E+00	.3868E-01	.1150E+01	.9938E+00	.1007E+01	.3400E+01	.1031E+01	-.2111E+00	.2356E-01
61	.1191E+01	.1138E+01	.9957E+00	.3690E-01	.1144E+01	.9934E+00	.1008E+01	.3409E+01	.1014E+01	-.2356E+00	.2224E-01
62	.1176E+01	.1128E+01	.9973E+00	.3442E-01	.1135E+01	.9932E+00	.1009E+01	.3421E+01	.1000E+01	-.1992E+00	.2048E-01
63	.1156E+01	.1115E+01	.9991E+00	.3108E-01	.1123E+01	.9932E+00	.1010E+01	.3435E+01	.1003E+01	-.1911E+00	.1820E-01
64	.1132E+01	.1098E+01	.1001E+01	.2673E-01	.1108E+01	.9934E+00	.1011E+01	.3452E+01	.1012E+01	-.1644E+00	.1536E-01
65	.1104E+01	.1078E+01	.1003E+01	.2136E-01	.1089E+01	.9939E+00	.1011E+01	.3469E+01	.1027E+01	-.1423E+00	.1208E-01
66	.1073E+01	.1056E+01	.1004E+01	.1531E-01	.1067E+01	.9945E+00	.1011E+01	.3486E+01	.1087E+01	-.2057E+00	.8560E-02
67	.1045E+01	.1036E+01	.1005E+01	.9373E-02	.1045E+01	.9952E+00	.1009E+01	.3500E+01	.1043E+01	-.1702E+00	.5258E-02
68	.1023E+01	.1019E+01	.1004E+01	.4464E-02	.1027E+01	.9958E+00	.1007E+01	.3510E+01	.1023E+01	-.1279E+00	.2638E-02
69	.1008E+01	.1008E+01	.1004E+01	.1078E-02	.1014E+01	.9965E+00	.1005E+01	.3513E+01	.1021E+01	-.1081E+00	.8848E-03
70	.9996E+00	.1002E+01	.1002E+01	-.7482E-03	.1005E+01	.9971E+00	.1003E+01	.3513E+01	.1021E+01	-.7733E-01	-.5146E-04
71	.9968E+00	.9993E+00	.1001E+01	-.1347E-02	.1001E+01	.9977E+00	.1001E+01	.3509E+01	.1054E+01	-.1048E+00	-.3738E-03
72	.9968E+00	.9991E+00	.1001E+01	-.1306E-02	.9997E+00	.9981E+00	.1000E+01	.3507E+01	.1019E+01	-.7841E-01	-.3739E-03
73	.9968E+00	.9991E+00	.1001E+01	-.1306E-02	.9997E+00	.9981E+00	.1000E+01	.3506E+01	.1001E+01	-.2740E-01	-.3739E-03

1	.2915E+01	.9000E+02	.8412E+01	0.	-.2500E+00	-.6627E-12	0.	-.1673E-10	-.1166E+02	.9920E+00
2	.2915E+01	.8600E+02	.8412E+01	-.8005E-06	-.2500E+00	-.1610E-08	-.2873E-05	-.5633E-11	-.1166E+02	.9920E+00
3	.2915E+01	.8200E+02	.8412E+01	-.6525E-06	-.2500E+00	-.7365E-08	-.2342E-05	0.	-.1166E+02	.9912E+00
4	.2915E+01	.7800E+02	.8412E+01	-.7105E-06	-.2500E+00	-.2956E-07	-.2546E-05	.8284E-13	-.1166E+02	.9894E+00
5	.2915E+01	.7400E+02	.8412E+01	-.7884E-06	-.2500E+00	-.1143E-06	-.2813E-05	.2000E+00	-.1166E+02	.9864E+00
6	.2974E+01	.7000E+02	.8275E+01	-.8501E-06	-.2500E+00	-.4640E-06	-.3013E-05	.4373E+00	-.1190E+02	.9822E+00
7	.3046E+01	.6600E+02	.8118E+01	-.8874E-06	-.2500E+00	-.1983E-05	-.3118E-05	.4775E+00	-.1218E+02	.9769E+00
8	.3123E+01	.6200E+02	.7961E+01	-.8853E-06	-.2500E+00	-.8906E-05	-.3075E-05	.4893E+00	-.1249E+02	.9712E+00
9	.3205E+01	.5800E+02	.7805E+01	-.8323E-06	-.2500E+00	-.4217E-04	-.2847E-05	.5020E+00	-.1282E+02	.9659E+00
10	.3294E+01	.5400E+02	.7648E+01	-.7249E-06	-.2500E+00	-.2117E-03	-.2425E-05	.4993E+00	-.1317E+02	.9625E+00
11	.3387E+01	.5000E+02	.7501E+01	-.5685E-06	-.2501E+00	-.1128E-02	-.1834E-05	.5181E+00	-.1354E+02	.9628E+00
12	.3500E+01	.4600E+02	.7342E+01	-.3741E-06	-.2507E+00	-.6589E-02	-.1116E-05	.5464E+00	-.1395E+02	.9684E+00
13	.4146E+01	.4203E+02	.7189E+01	-.1422E-06	-.2841E+00	-.5201E-01	-.3071E-06	.5598E+00	-.1449E+02	.9800E+00
14	.4930E+01	.3901E+02	.7072E+01	.3319E-07	-.3331E+00	-.2844E-01	.2887E-06	.5646E+00	-.1476E+02	.9971E+00
15	.6209E+01	.3604E+02	.6960E+01	.1411E-06	-.3973E+00	-.1131E+00	.6300E-06	.3626E+00	-.1553E+02	.1018E+01
16	.7550E+01	.3401E+02	.6955E+01	.1965E-06	-.4954E+00	-.3939E-01	.7904E-06	.1519E-01	-.1524E+02	.1040E+01
17	.7695E+01	.3201E+02	.6956E+01	.2533E-06	-.5005E+00	-.2694E-01	.9718E-06	-.1235E-01	-.1537E+02	.1061E+01
18	.7915E+01	.3002E+02	.6958E+01	.2872E-06	-.5050E+00	-.5302E-01	.1071E-05	-.4082E-01	-.1568E+02	.1079E+01
19	.8509E+01	.2805E+02	.6966E+01	.2922E-06	-.5143E+00	-.1611E+00	.1068E-05	-.1976E+00	-.1661E+02	.1094E+01
20	.1483E+02	.2611E+02	.7005E+01	.1794E-06	-.6843E+00	-.6815E+00	.6454E-06	-.2023E+00	-.2187E+02	.1105E+01
21	.2052E+02	.2510E+02	.6994E+01	.1386E-06	-.1020E+01	-.8157E+00	.4921E-06	-.2666E+00	-.2033E+02	.1110E+01
22	.4237E+02	.2413E+02	.7031E+01	.7292E-07	-.1539E+01	-.2255E+01	.2559E-06	.3552E+00	-.2700E+02	.1110E+01
23	.5842E+02	.2382E+02	.6977E+01	.5672E-07	-.3188E+01	-.1913E+01	.1968E-06	.1977E+01	-.1714E+02	.1107E+01
24	.5882E+02	.2354E+02	.6963E+01	.5768E-07	-.3622E+01	-.1190E+01	.1974E-06	.5593E+00	-.1606E+02	.1103E+01
25	.5947E+02	.2328E+02	.6958E+01	.5773E-07	-.3751E+01	-.6987E+00	.1953E-06	.2301E+00	-.1581E+02	.1100E+01
26	.6090E+02	.2301E+02	.6955E+01	.5771E-07	-.3810E+01	-.3399E+00	.1938E-06	.1443E+00	-.1597E+02	.1098E+01
27	.6204E+02	.2275E+02	.6953E+01	.5868E-07	-.3849E+01	-.5331E-01	.1962E-06	.1049E+00	-.1612E+02	.1097E+01
28	.6297E+02	.2249E+02	.6952E+01	.5996E-07	-.3876E+01	.1858E+00	.1997E-06	.3199E+00	-.1626E+02	.1096E+01
29	.6393E+02	.2224E+02	.6943E+01	.6073E-07	-.3902E+01	.3982E+00	.2011E-06	.6346E+00	-.1645E+02	.1095E+01
30	.6487E+02	.2198E+02	.6932E+01	.6103E-07	-.3924E+01	.5921E+00	.2004E-06	.5843E+00	-.1662E+02	.1095E+01
31	.6570E+02	.2172E+02	.6925E+01	.6103E-07	-.3949E+01	.7605E+00	.1983E-06	.9772E+00	-.1683E+02	.1095E+01
32	.6622E+02	.2147E+02	.6902E+01	.6093E-07	-.3978E+01	.9506E+00	.1952E-06	.1379E+01	-.1698E+02	.1095E+01
33	.6617E+02	.2121E+02	.6883E+01	.6110E-07	-.3990E+01	.1122E+01	.1923E-06	.1367E+01	-.1697E+02	.1095E+01
34	.6365E+02	.2095E+02	.6861E+01	.6341E-07	-.4009E+01	.1291E+01	.1953E-06	.1576E+01	-.1638E+02	.1096E+01
35	.6124E+02	.2070E+02	.6834E+01	.6557E-07	-.4029E+01	.1477E+01	.1972E-06	.1631E+01	-.1580E+02	.1097E+01
36	.5910E+02	.2044E+02	.6808E+01	.6741E-07	-.4045E+01	.1664E+01	.1977E-06	.1603E+01	-.1527E+02	.1097E+01
37	.5741E+02	.2018E+02	.6780E+01	.6879E-07	-.4059E+01	.1878E+01	.1968E-06	.1889E+01	-.1502E+02	.1098E+01
38	.5239E+02	.1991E+02	.6742E+01	.7443E-07	-.4060E+01	.2142E+01	.2077E-06	.1910E+01	-.1391E+02	.1099E+01
39	.4881E+02	.1965E+02	.6707E+01	.7855E-07	-.4023E+01	.2471E+01	.2142E-06	.1475E+01	-.1304E+02	.1100E+01
40	.4717E+02	.1938E+02	.6682E+01	.8018E-07	-.3897E+01	.2881E+01	.2152E-06	.9763E+00	-.1283E+02	.1100E+01
41	.4536E+02	.1910E+02	.6665E+01	.8276E-07	-.3560E+01	.3405E+01	.2210E-06	.1716E+00	-.1291E+02	.1099E+01
42	.3996E+02	.1881E+02	.6674E+01	.9458E-07	-.2779E+01	.3627E+01	.2534E-06	.1076E+01	-.1578E+02	.1097E+01
43	.3213E+02	.1831E+02	.6611E+01	.1177E-06	-.2356E+01	.2914E+01	.3167E-06	.1925E+01	-.1602E+02	.1094E+01
44	.3044E+02	.1781E+02	.6554E+01	.1214E-06	-.2299E+01	.2795E+01	.3289E-06	.1666E+01	-.1527E+02	.1091E+01
45	.2929E+02	.1731E+02	.6502E+01	.1609E-07	-.2271E+01	.2729E+01	.3325E-06	.1402E+01	-.1458E+02	.1088E+01
46	.2887E+02	.1682E+02	.6458E+01	.4668E-06	-.2350E+01	.2601E+01	.2449E-06	.1758E+01	-.1423E+02	.1085E+01
47	.3137E+02	.1633E+02	.6380E+01	-.2013E-06	-.2816E+01	.2576E+01	.2267E-06	.3063E+01	-.1394E+02	.1088E+01
48	.3942E+02	.1593E+02	.6263E+01	.1633E-06	-.3966E+01	.2664E+01	.2145E-06	.2307E+01	-.1149E+02	.1087E+01
49	.6763E+02	.1574E+02	.6263E+01	.4474E-07	-.5062E+01	.2436E+01	.1441E-06	-.1952E+01	-.1088E+02	.1084E+01
50	.7567E+02	.1561E+02	.6321E+01	.3760E-07	-.2401E+01	.9044E+01	.1277E-06	-.6178E+01	-.8244E+01	.1080E+01
51	.7109E+02	.1552E+02	.6426E+01	.3966E-07	.6711E+00	.8951E+01	.1304E-06	-.8204E+01	-.3500E+01	.1077E+01
52	.6676E+02	.1551E+02	.6552E+01	.4220E-07	.2969E+01	.8084E+01	.1353E-06	-.7606E+01	.1775E+01	.1073E+01
53	.6236E+02	.1558E+02	.6654E+01	.4570E-07	.4819E+01	.6690E+01	.1499E-06	-.5311E+01	.5567E+01	.1070E+01
54	.5836E+02	.1569E+02	.6722E+01	.5205E-07	.6256E+01	.4768E+01	.1646E-06	-.2568E+01	.7371E+01	.1067E+01
55	.4505E+02	.1583E+02	.6742E+01	.6819E-07	.5864E+01	.2049E+01	.2086E-06	-.2409E+01	.6841E+01	.1064E+01
56	.3456E+02	.1599E+02	.6829E+01	.1486E-06	.4739E+01	.1316E+01	.2781E-06	-.3005E+01	.6459E+01	.1063E+01
57	.2787E+02	.1620E+02	.6916E+01	-.1060E-06	.3951E+01	.1034E+01	.2605E-06	-.2413E+01	.6423E+01	.1060E+01
58	.2441E+02	.1645E+02	.7002E+01	.4228E-06	.3566E+01	.7745E+00	.3268E-06	-.1929E+01	.6427E+01	.1053E+01
59	.2200E+02	.1673E+02	.7074E+01	.7416E-07	.3262E+01	.3813E+00	.5063E-06	-.1389E+01	.6583E+01	.1051E+01
60	.1786E+02	.1705E+02	.7128E+01	.2259E-06	.2655E+01	-.8076E-01	.6767E-06	-.1691E+01	.6779E+01	.1049E+01
61	.1432E+02	.1749E+02	.7264E+01	.3026E-06	.2130E+01	.1720E+00	.9147E-06	-.1830E+01	.6577E+01	.1046E+01
62	.1326E+02	.1797E+02	.7384E+01	.3452E-06	.1981E+01	.2434E+00	.1061E-05	-.1552E+01	.6503E+01	.1042E+01
63	.1262E+02	.1847E+02	.7496E+01	.3734E-06	.1919E+01	.2073E+00	.1170E-05	-.1450E+01	.6420E+01	.1037E+01
64	.1204E+02	.1899E+02	.7614E+01	.3872E-06	.1882E+01	.8592E-01	.1242E-05	-.1219E+01	.6341E+01	.1031E+01
65	.1112E+02	.1952E+02	.7700E+01	.3927E-06	.1789E+01	-.1372E+00	.1298E-05	-.1013E+01	.6294E+01	.1024E+01

66	.8763E+01	.2012E+02	.7796E+01	.4319E-06	.1396E+01	-.4404E+00	.1481E-05	-.1329E+01	.6698E+01	.1016E+01
67	.6253E+01	.2105E+02	.8003E+01	.4785E-06	.1073E+01	-.1488E+00	.1723E-05	-.1034E+01	.5972E+01	.1009E+01
68	.5664E+01	.2203E+02	.8127E+01	.3750E-06	.1020E+01	-.8398E-01	.1443E-05	-.7294E+00	.5612E+01	.1003E+01
69	.5433E+01	.2303E+02	.8261E+01	.2424E-06	.9943E+00	-.1032E+00	.1029E-05	-.5915E+00	.5526E+01	.9996E+00
70	.5326E+01	.2406E+02	.8345E+01	.1305E-06	.9532E+00	-.1924E+00	.6515E-06	-.4183E+00	.5672E+01	.9978E+00
71	.4454E+01	.2516E+02	.8418E+01	.7228E-07	.6984E+00	-.3627E+00	.4704E-06	-.5834E+00	.6681E+01	.9975E+00
72	.3311E+01	.2706E+02	.8607E+01	.1137E-06	.5292E+00	-.1045E+00	.1052E-05	-.4726E+00	.6350E+01	.9977E+00
73	.3432E+01	.2900E+02	.8703E+01	0.	.5114E+00	.3902E-12	0.	-.1750E+00	.6712E+01	.9977E+00

SECOND INDEX= 11

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9670E+00	.9745E+00	.9990E+00	-.6759E-02	.9713E+00	.1003E+01	.9964E+00	.3510E+01	-.9990E+00	.6759E-02	-.3854E-02
2	.9670E+00	.9745E+00	.9990E+00	-.6759E-02	.9713E+00	.1003E+01	.9964E+00	.3510E+01	-.9990E+00	.6759E-02	-.3854E-02
3	.9642E+00	.9724E+00	.9989E+00	-.7332E-02	.9690E+00	.1003E+01	.9961E+00	.3511E+01	-.9989E+00	.7332E-02	-.4178E-02
4	.9578E+00	.9678E+00	.9988E+00	-.8648E-02	.9639E+00	.1003E+01	.9954E+00	.3514E+01	-.9988E+00	.8648E-02	-.4919E-02
5	.9476E+00	.9605E+00	.9988E+00	-.1079E-01	.9558E+00	.1003E+01	.9944E+00	.3520E+01	-.9989E+00	.2765E-01	-.6112E-02
6	.9337E+00	.9506E+00	.9988E+00	-.1373E-01	.9452E+00	.1002E+01	.9933E+00	.3528E+01	-.9995E+00	.4986E-01	-.7733E-02
7	.9170E+00	.9388E+00	.9991E+00	-.1732E-01	.9327E+00	.1002E+01	.9922E+00	.3538E+01	-.9998E+00	.5584E-01	-.9676E-02
8	.8994E+00	.9263E+00	.9996E+00	-.2119E-01	.9200E+00	.1001E+01	.9914E+00	.3551E+01	-.1000E+01	.5971E-01	-.1173E-01
9	.8936E+00	.9152E+00	.1001E+01	-.2475E-01	.9093E+00	.1000E+01	.9912E+00	.3565E+01	-.1001E+01	.6327E-01	-.1357E-01
10	.8733E+00	.9079E+00	.1002E+01	-.2716E-01	.9033E+00	.9997E+00	.9921E+00	.3577E+01	-.1003E+01	.6447E-01	-.1478E-01
11	.8725E+00	.9072E+00	.1004E+01	-.2740E-01	.9049E+00	.1000E+01	.9945E+00	.3583E+01	-.1004E+01	.6512E-01	-.1486E-01
12	.8854E+00	.9158E+00	.1005E+01	-.2454E-01	.9170E+00	.1002E+01	.9985E+00	.3580E+01	-.1004E+01	.6312E-01	-.1336E-01
13	.9152E+00	.9358E+00	.1007E+01	-.1796E-01	.9416E+00	.1004E+01	.1004E+01	.3565E+01	-.9980E+00	.5664E-01	-.9893E-02
14	.9630E+00	.9682E+00	.1008E+01	-.7706E-02	.9794E+00	.1006E+01	.1010E+01	.3538E+01	-.1005E+01	.4541E-01	-.4312E-02
15	.1028E+01	.1013E+01	.1008E+01	.5470E-02	.1029E+01	.1010E+01	.1016E+01	.3503E+01	-.1004E+01	.1811E-01	.3235E-02
16	.1106E+01	.1066E+01	.1007E+01	.2032E-01	.1088E+01	.1011E+01	.1021E+01	.3463E+01	-.1009E+01	-.1910E-01	.1231E-01
17	.1191E+01	.1125E+01	.1005E+01	.3540E-01	.1150E+01	.1009E+01	.1025E+01	.3423E+01	-.1007E+01	-.3683E-01	.2222E-01
18	.1276E+01	.1185E+01	.1002E+01	.4949E-01	.1211E+01	.1006E+01	.1027E+01	.3384E+01	-.1008E+01	-.5382E-01	.3215E-01
19	.1353E+01	.1239E+01	.9987E+00	.6154E-01	.1266E+01	.1003E+01	.1028E+01	.3351E+01	-.1023E+01	-.8277E-01	.4119E-01
20	.1415E+01	.1281E+01	.9952E+00	.7067E-01	.1307E+01	.9997E+00	.1027E+01	.3324E+01	-.1075E+01	-.1165E+00	.4837E-01
21	.1452E+01	.1307E+01	.9924E+00	.7610E-01	.1331E+01	.9978E+00	.1025E+01	.3305E+01	-.1066E+01	-.1213E+00	.5274E-01
22	.1464E+01	.1316E+01	.9906E+00	.7779E-01	.1336E+01	.9968E+00	.1024E+01	.3297E+01	-.1069E+01	-.9818E-01	.5408E-01
23	.1455E+01	.1311E+01	.9902E+00	.7670E-01	.1330E+01	.9965E+00	.1022E+01	.3299E+01	-.9583E+00	.8198E-01	.5312E-01
24	.1442E+01	.1302E+01	.9909E+00	.7491E-01	.1321E+01	.9962E+00	.1022E+01	.3305E+01	-.1000E+01	-.2422E-01	.5154E-01
25	.1431E+01	.1295E+01	.9920E+00	.7345E-01	.1315E+01	.9957E+00	.1023E+01	.3313E+01	-.1003E+01	-.5813E-01	.5022E-01
26	.1423E+01	.1292E+01	.9927E+00	.7258E-01	.1312E+01	.9949E+00	.1023E+01	.3319E+01	-.9986E+00	-.6651E-01	.4938E-01
27	.1420E+01	.1290E+01	.9931E+00	.7215E-01	.1311E+01	.9939E+00	.1023E+01	.3322E+01	-.9938E+00	-.6822E-01	.4897E-01
28	.1419E+01	.1290E+01	.9930E+00	.7197E-01	.1311E+01	.9930E+00	.1023E+01	.3323E+01	-.9903E+00	-.5523E-01	.4886E-01
29	.1420E+01	.1292E+01	.9928E+00	.7193E-01	.1311E+01	.9922E+00	.1022E+01	.3323E+01	-.9894E+00	-.3701E-01	.4894E-01
30	.1421E+01	.1293E+01	.9925E+00	.7196E-01	.1312E+01	.9916E+00	.1022E+01	.3322E+01	-.9868E+00	-.4037E-01	.4910E-01
31	.1423E+01	.1294E+01	.9923E+00	.7200E-01	.1313E+01	.9913E+00	.1021E+01	.3321E+01	-.9906E+00	-.1651E-01	.4929E-01
32	.1424E+01	.1296E+01	.9920E+00	.7202E-01	.1314E+01	.9911E+00	.1021E+01	.3320E+01	-.9973E+00	.8539E-02	.4949E-01
33	.1426E+01	.1297E+01	.9917E+00	.7203E-01	.1314E+01	.9913E+00	.1021E+01	.3318E+01	-.9995E+00	.1472E-01	.4970E-01
34	.1428E+01	.1297E+01	.9913E+00	.7199E-01	.1315E+01	.9917E+00	.1021E+01	.3316E+01	-.1009E+01	.3817E-01	.4991E-01
35	.1430E+01	.1298E+01	.9908E+00	.7193E-01	.1314E+01	.9924E+00	.1020E+01	.3313E+01	-.1014E+01	.4644E-01	.5011E-01
36	.1431E+01	.1298E+01	.9902E+00	.7183E-01	.1314E+01	.9933E+00	.1020E+01	.3309E+01	-.1016E+01	.4771E-01	.5026E-01
37	.1432E+01	.1298E+01	.9896E+00	.7170E-01	.1312E+01	.9942E+00	.1019E+01	.3306E+01	-.1037E+01	.8365E-01	.5035E-01
38	.1432E+01	.1297E+01	.9890E+00	.7157E-01	.1310E+01	.9952E+00	.1018E+01	.3303E+01	-.1054E+01	.1068E+00	.5033E-01
39	.1430E+01	.1295E+01	.9883E+00	.7141E-01	.1307E+01	.9962E+00	.1017E+01	.3300E+01	-.1029E+01	.6059E-01	.5020E-01
40	.1427E+01	.1292E+01	.9877E+00	.7105E-01	.1303E+01	.9969E+00	.1017E+01	.3298E+01	-.9831E+00	.1066E-01	.4982E-01
41	.1421E+01	.1288E+01	.9873E+00	.7027E-01	.1298E+01	.9972E+00	.1016E+01	.3298E+01	-.9078E+00	-.1122E+00	.4908E-01
42	.1411E+01	.1281E+01	.9872E+00	.6895E-01	.1290E+01	.9971E+00	.1015E+01	.3301E+01	-.9774E+00	-.1486E-01	.4788E-01
43	.1396E+01	.1272E+01	.9870E+00	.6726E-01	.1279E+01	.9973E+00	.1013E+01	.3305E+01	-.1078E+01	.1067E+00	.4623E-01
44	.1380E+01	.1261E+01	.9868E+00	.6543E-01	.1266E+01	.9979E+00	.1012E+01	.3308E+01	-.1059E+01	.8516E-01	.4430E-01
45	.1362E+01	.1248E+01	.9866E+00	.6352E-01	.1252E+01	.9988E+00	.1010E+01	.3312E+01	-.1044E+01	.6851E-01	.4227E-01
46	.1346E+01	.1237E+01	.9864E+00	.6155E-01	.1239E+01	.9997E+00	.1009E+01	.3316E+01	-.1098E+01	.1370E+00	.4034E-01
47	.1342E+01	.1230E+01	.9836E+00	.5949E-01	.1228E+01	.1004E+01	.1006E+01	.3302E+01	-.1223E+01	.3069E+00	3989E-01
48	.1330E+01	.1221E+01	.9838E+00	.5767E-01	.1218E+01	.1006E+01	.1006E+01	.3305E+01	-.1100E+01	.1391E+00	.3850E-01
49	.1315E+01	.1212E+01	.9844E+00	.5544E-01	.1209E+01	.1005E+01	.1005E+01	.3313E+01	-.4704E+00	-.5904E+00	.3669E-01
50	.1296E+01	.1200E+01	.9853E+00	.5240E-01	.1197E+01	.1004E+01	.1004E+01	.3323E+01	-.5762E-01	-.9504E+00	.3452E-01
51	.1276E+01	.1187E+01	.9863E+00	.4883E-01	.1184E+01	.1004E+01	.1004E+01	.3333E+01	.2026E+00	-.1056E+01	.3215E-01
52	.1256E+01	.1174E+01	.9874E+00	.4543E-01	.1171E+01	.1004E+01	.1004E+01	.3344E+01	.3761E+00	-.9549E+00	.2989E-01
53	.1240E+01	.1164E+01	.9884E+00	.4278E-01	.1162E+01	.1003E+01	.1004E+01	.3354E+01	.5614E+00	-.7171E+00	.2800E-01
54	.1227E+01	.1157E+01	.9893E+00	.4090E-01	.1155E+01	.1001E+01	.1004E+01	.3365E+01	.7656E+00	-.4181E+00	.2648E-01

55	.1215E+01	.1150E+01	.9902E+00	.3907E-01	.1148E+01	.9998E+00	.1004E+01	.3375E+01	.8726E+00	-.3485E+00	.2512E-01
56	.1204E+01	.1142E+01	.9909E+00	.3709E-01	.1142E+01	.9999E+00	.1004E+01	.3380E+01	.9132E+00	-.4015E+00	.2384E-01
57	.1194E+01	.1136E+01	.9917E+00	.3544E-01	.1135E+01	.9988E+00	.1004E+01	.3388E+01	.9402E+00	-.3292E+00	.2259E-01
58	.1179E+01	.1129E+01	.9943E+00	.3438E-01	.1131E+01	.9943E+00	.1005E+01	.3408E+01	.9628E+00	-.2551E+00	.2085E-01
59	.1173E+01	.1126E+01	.9950E+00	.3356E-01	.1129E+01	.9940E+00	.1006E+01	.3413E+01	.9826E+00	-.1660E+00	.2022E-01
60	.1167E+01	.1121E+01	.9958E+00	.3249E-01	.1125E+01	.9939E+00	.1007E+01	.3419E+01	.1007E+01	-.2106E+00	.1946E-01
61	.1158E+01	.1116E+01	.9967E+00	.3105E-01	.1120E+01	.9938E+00	.1007E+01	.3425E+01	.1003E+01	-.2466E+00	.1845E-01
62	.1148E+01	.1108E+01	.9979E+00	.2925E-01	.1114E+01	.9938E+00	.1008E+01	.3434E+01	.9959E+00	-.2090E+00	.1721E-01
63	.1134E+01	.1099E+01	.9992E+00	.2685E-01	.1106E+01	.9939E+00	.1009E+01	.3444E+01	.1001E+01	-.2003E+00	.1563E-01
64	.1117E+01	.1087E+01	.1001E+01	.2364E-01	.1095E+01	.9942E+00	.1009E+01	.3456E+01	.1010E+01	-.1712E+00	.1361E-01
65	.1095E+01	.1071E+01	.1002E+01	.1949E-01	.1080E+01	.9946E+00	.1010E+01	.3469E+01	.1022E+01	-.1398E+00	.1110E-01
66	.1071E+01	.1054E+01	.1003E+01	.1456E-01	.1063E+01	.9951E+00	.1009E+01	.3483E+01	.1069E+01	-.2061E+00	.8257E-02
67	.1047E+01	.1036E+01	.1004E+01	.9505E-02	.1044E+01	.9957E+00	.1008E+01	.3495E+01	.1041E+01	-.1859E+00	.5437E-02
68	.1026E+01	.1021E+01	.1004E+01	.5062E-02	.1028E+01	.9963E+00	.1006E+01	.3504E+01	.1023E+01	-.1347E+00	.3034E-02
69	.1011E+01	.1010E+01	.1003E+01	.1721E-02	.1015E+01	.9969E+00	.1004E+01	.3509E+01	.1019E+01	-.1050E+00	.1259E-02
70	.1001E+01	.1003E+01	.1002E+01	-.3475E-03	.1006E+01	.9975E+00	.1002E+01	.3510E+01	.1015E+01	-.5932E-01	.1560E-03
71	.9969E+00	.9992E+00	.1001E+01	-.1279E-02	.1000E+01	.9980E+00	.1001E+01	.3508E+01	.1041E+01	-.9140E-01	-.3649E-03
72	.9958E+00	.9981E+00	.1001E+01	-.1469E-02	.9985E+00	.9983E+00	.1000E+01	.3506E+01	.1017E+01	-.7657E-01	-.4953E-03
73	.9958E+00	.9981E+00	.1001E+01	-.1469E-02	.9985E+00	.9983E+00	.1000E+01	.3506E+01	.1001E+01	-.1633E-01	-.4954E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.1919E+01	.9000E+02	.8308E+01	0.	-.2500E+00	.1745E-11	0.	-.1478E-10	-.7677E+01	.9923E+00
2	.1919E+01	.8600E+02	.8308E+01	-.1232E-05	-.2500E+00	-.1608E-08	-.4445E-05	-.4800E-11	-.7677E+01	.9923E+00
3	.1919E+01	.8200E+02	.8308E+01	-.1001E-05	-.2500E+00	-.7337E-08	-.3614E-05	.5455E-13	-.7677E+01	.9915E+00
4	.1919E+01	.7800E+02	.8308E+01	-.1085E-05	-.2500E+00	-.2945E-07	-.3908E-05	-.1091E-12	-.7677E+01	.9897E+00
5	.1919E+01	.7400E+02	.8308E+01	-.1198E-05	-.2500E+00	-.1141E-06	-.4294E-05	.1296E+00	-.7677E+01	.9866E+00
6	.1963E+01	.7000E+02	.8173E+01	-.1284E-05	-.2500E+00	-.4638E-06	-.4564E-05	.2840E+00	-.7853E+01	.9822E+00
7	.2017E+01	.6600E+02	.8019E+01	-.1333E-05	-.2500E+00	-.1982E-05	-.4690E-05	.3110E+00	-.8067E+01	.9768E+00
8	.2074E+01	.6200E+02	.7865E+01	-.1326E-05	-.2500E+00	-.8902E-05	-.4599E-05	.3197E+00	-.8297E+01	.9709E+00
9	.2136E+01	.5800E+02	.7711E+01	-.1244E-05	-.2500E+00	-.4214E-04	-.4239E-05	.3289E+00	-.8544E+01	.9655E+00
10	.2203E+01	.5400E+02	.7557E+01	-.1083E-05	-.2500E+00	-.2115E-03	-.3597E-05	.3281E+00	-.8810E+01	.9618E+00
11	.2274E+01	.5000E+02	.7413E+01	-.8510E-06	-.2502E+00	-.1127E-02	-.2710E-05	.3416E+00	-.9087E+01	.9618E+00
12	.2362E+01	.4601E+02	.7256E+01	-.5620E-06	-.2511E+00	-.6567E-02	-.1640E-05	.3609E+00	-.9396E+01	.9669E+00
13	.2802E+01	.4205E+02	.7107E+01	-.2188E-06	-.2844E+00	-.5000E-01	-.4475E-06	.3712E+00	-.9788E+01	.9780E+00
14	.3348E+01	.3902E+02	.6991E+01	.4115E-07	-.3335E+00	-.2821E-01	.4279E-06	.3741E+00	-.1001E+02	.9946E+00
15	.4209E+01	.3607E+02	.6884E+01	.2015E-06	-.3974E+00	-.1079E+00	.9281E-06	.2407E+00	-.1053E+02	.1015E+01
16	.5118E+01	.3402E+02	.6877E+01	.2834E-06	-.4933E+00	-.3918E-01	.1159E-05	.1311E-01	-.1037E+02	.1037E+01
17	.5249E+01	.3201E+02	.6879E+01	.3630E-06	-.5007E+00	-.2676E-01	.1409E-05	-.1436E-01	-.1048E+02	.1058E+01
18	.5431E+01	.3002E+02	.6882E+01	.4073E-06	-.5074E+00	-.5237E-01	.1533E-05	-.4298E-01	-.1071E+02	.1077E+01
19	.5881E+01	.2807E+02	.6894E+01	.4082E-06	-.5212E+00	-.1569E+00	.1502E-05	-.1966E+00	-.1134E+02	.1092E+01
20	.9901E+01	.2617E+02	.6949E+01	.2564E-06	-.6925E+00	-.6441E+00	.9264E-06	-.1971E+00	-.1448E+02	.1104E+01
21	.1393E+02	.2514E+02	.6934E+01	.1922E-06	-.1029E+01	-.7888E+00	.6829E-06	-.2595E+00	-.1374E+02	.1111E+01
22	.2655E+02	.2419E+02	.6986E+01	.1078E-06	-.1527E+01	-.1990E+01	.3768E-06	.2870E+00	-.1701E+02	.1112E+01
23	.3689E+02	.2386E+02	.6913E+01	.8196E-07	-.2922E+01	-.1807E+01	.2814E-06	.1782E+01	-.1153E+02	.1110E+01
24	.3821E+02	.2357E+02	.6890E+01	.8040E-07	-.3437E+01	-.1169E+01	.2704E-06	.5685E+00	-.1092E+02	.1107E+01
25	.3931E+02	.2329E+02	.6883E+01	.7870E-07	-.3627E+01	-.6893E+00	.2598E-06	.1760E+00	-.1081E+02	.1104E+01
26	.4070E+02	.2302E+02	.6881E+01	.7796E-07	-.3718E+01	-.3297E+00	.2541E-06	.6934E-01	-.1094E+02	.1102E+01
27	.4174E+02	.2275E+02	.6879E+01	.7907E-07	-.3774E+01	-.4126E-01	.2555E-06	.4377E-01	-.1106E+02	.1101E+01
28	.4254E+02	.2249E+02	.6879E+01	.8072E-07	-.3813E+01	.2005E+00	.2588E-06	.1897E+00	-.1117E+02	.1100E+01
29	.4332E+02	.2223E+02	.6870E+01	.8173E-07	-.3846E+01	.4151E+00	.2594E-06	.4017E+00	-.1131E+02	.1099E+01
30	.4407E+02	.2197E+02	.6860E+01	.8210E-07	-.3875E+01	.6102E+00	.2575E-06	.3718E+00	-.1143E+02	.1099E+01
31	.4469E+02	.2171E+02	.6854E+01	.8219E-07	-.3902E+01	.7847E+00	.2542E-06	.6538E+00	-.1158E+02	.1099E+01
32	.4501E+02	.2145E+02	.6831E+01	.8239E-07	-.3931E+01	.9729E+00	.2505E-06	.9439E+00	-.1168E+02	.1099E+01
33	.4494E+02	.2119E+02	.6812E+01	.8301E-07	-.3945E+01	.1146E+01	.2474E-06	.1011E+01	-.1168E+02	.1100E+01
34	.4295E+02	.2093E+02	.6786E+01	.8696E-07	-.3963E+01	.1321E+01	.2535E-06	.1213E+01	-.1124E+02	.1101E+01
35	.4102E+02	.2067E+02	.6759E+01	.9075E-07	-.3978E+01	.1511E+01	.2582E-06	.1234E+01	-.1078E+02	.1102E+01
36	.3932E+02	.2040E+02	.6726E+01	.9408E-07	-.3988E+01	.1707E+01	.2614E-06	.1189E+01	-.1037E+02	.1102E+01
37	.3789E+02	.2014E+02	.6695E+01	.9697E-07	-.3986E+01	.1929E+01	.2636E-06	.1463E+01	-.1021E+02	.1103E+01
38	.3401E+02	.1986E+02	.6649E+01	.1068E-06	-.3962E+01	.2212E+01	.2847E-06	.1491E+01	-.9417E+01	.1104E+01
39	.3113E+02	.1959E+02	.6607E+01	.1148E-06	-.3877E+01	.2554E+01	.3008E-06	.1041E+01	-.8715E+01	.1105E+01
40	.2943E+02	.1930E+02	.6582E+01	.1199E-06	-.3671E+01	.2932E+01	.3112E-06	.5402E+00	-.8450E+01	.1105E+01
41	.2736E+02	.1901E+02	.6570E+01	.1287E-06	-.3280E+01	.3294E+01	.3340E-06	-.8105E-01	-.8259E+01	.1103E+01
42	.2373E+02	.1870E+02	.6588E+01	.1497E-06	-.2679E+01	.3329E+01	.3915E-06	.5858E+00	-.9585E+01	.1101E+01
43	.2013E+02	.1820E+02	.6521E+01	.1774E-06	-.2362E+01	.2854E+01	.4677E-06	.1273E+01	-.1006E+02	.1098E+01
44	.1912E+02	.1770E+02	.6461E+01	.1841E-06	-.2303E+01	.2763E+01	.4916E-06	.1096E+01	-.9618E+01	.1095E+01

45	.1843E+02	.1720E+02	.6406E+01	.1783E-07	-.2293E+01	.2702E+01	.5020E-06	.9506E+00	-.9157E+01	.1091E+01
46	.1863E+02	.1671E+02	.6358E+01	.7211E-06	-.2435E+01	.2638E+01	.3513E-06	.1285E+01	-.9046E+01	.1088E+01
47	.2043E+02	.1623E+02	.6268E+01	-.1727E-06	-.2929E+01	.2642E+01	.3254E-06	.2156E+01	-.8919E+01	.1091E+01
48	.3113E+02	.1583E+02	.6147E+01	.2846E-06	-.3881E+01	.4536E+01	.3076E-06	.1297E+01	-.9538E+01	.1089E+01
49	.3706E+02	.1561E+02	.6185E+01	.1382E-06	-.2737E+01	.6633E+01	.2498E-06	-.2704E+01	-.6989E+01	.1085E+01
50	.3608E+02	.1546E+02	.6293E+01	.1270E-06	-.7065E+00	.7086E+01	.2457E-06	-.4653E+01	-.4395E+01	.1080E+01
51	.3339E+02	.1537E+02	.6443E+01	.1272E-06	.9210E+00	.6664E+01	.2553E-06	-.5235E+01	-.1627E+01	.1075E+01
52	.3131E+02	.1536E+02	.6606E+01	.1293E-06	.2166E+01	.6083E+01	.2710E-06	-.4741E+01	.1138E+01	.1070E+01
53	.2941E+02	.1544E+02	.6746E+01	.1347E-06	.3251E+01	.5323E+01	.3005E-06	-.3560E+01	.3217E+01	.1065E+01
54	.2791E+02	.1558E+02	.6849E+01	.1452E-06	.4223E+01	.4339E+01	.3290E-06	-.2131E+01	.4419E+01	.1061E+01
55	.2363E+02	.1576E+02	.6899E+01	.1745E-06	.4470E+01	.2787E+01	.3917E-06	-.1745E+01	.4199E+01	.1057E+01
56	.1984E+02	.1593E+02	.6996E+01	.3027E-06	.4136E+01	.1937E+01	.4788E-06	-.1906E+01	.3904E+01	.1054E+01
57	.1646E+02	.1615E+02	.7091E+01	-.7863E-07	.3661E+01	.1385E+01	.4534E-06	-.1536E+01	.3916E+01	.1051E+01
58	.1425E+02	.1641E+02	.7183E+01	.6621E-06	.3320E+01	.9884E+00	.5662E-06	-.1191E+01	.3936E+01	.1044E+01
59	.1263E+02	.1671E+02	.7258E+01	.1316E-06	.3007E+01	.5957E+00	.8493E-06	-.8233E+00	.4035E+01	.1042E+01
60	.1059E+02	.1705E+02	.7313E+01	.3617E-06	.2552E+01	.2281E+00	.1097E-05	-.1007E+01	.4060E+01	.1041E+01
61	.8928E+01	.1747E+02	.7448E+01	.4611E-06	.2149E+01	.2862E+00	.1409E-05	-.1143E+01	.4002E+01	.1038E+01
62	.8138E+01	.1795E+02	.7569E+01	.5376E-06	.1975E+01	.2902E+00	.1666E-05	-.9706E+00	.3978E+01	.1036E+01
63	.7599E+01	.1845E+02	.7687E+01	.6005E-06	.1884E+01	.2293E+00	.1894E-05	-.9080E+00	.3923E+01	.1032E+01
64	.7093E+01	.1898E+02	.7808E+01	.6502E-06	.1815E+01	.1030E+00	.2095E-05	-.7589E+00	.3865E+01	.1028E+01
65	.6364E+01	.1954E+02	.7901E+01	.6997E-06	.1685E+01	-.9608E-01	.2315E-05	-.5999E+00	.3811E+01	.1022E+01
66	.5047E+01	.2018E+02	.7997E+01	.7984E-06	.1359E+01	-.2990E+00	.2726E-05	-.8015E+00	.3889E+01	.1016E+01
67	.3817E+01	.2108E+02	.8218E+01	.8861E-06	.1090E+01	-.1149E+00	.3144E-05	-.6786E+00	.3572E+01	.1010E+01
68	.3397E+01	.2205E+02	.8353E+01	.7661E-06	.1021E+01	-.7228E-01	.2849E-05	-.4623E+00	.3359E+01	.1005E+01
69	.3203E+01	.2306E+02	.8490E+01	.5628E-06	.9802E+00	-.9722E-01	.2224E-05	-.3463E+00	.3303E+01	.1001E+01
70	.3070E+01	.2411E+02	.8569E+01	.3614E-06	.9177E+00	-.1827E+00	.1554E-05	-.1930E+00	.3383E+01	.9986E+00
71	.2579E+01	.2526E+02	.8616E+01	.2439E-06	.6926E+00	-.3063E+00	.1180E-05	-.3059E+00	.3858E+01	.9977E+00
72	.2054E+01	.2710E+02	.8806E+01	.4903E-06	.5422E+00	-.9725E-01	.2621E-05	-.2797E+00	.3839E+01	.9976E+00
73	.2139E+01	.2900E+02	.8808E+01	0.	.5187E+00	.2431E-12	0.	-.6124E-01	.4123E+01	.9976E+00

SECOND INDEX= 12

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9633E+00	.9706E+00	.9986E+00	-.7530E-02	.9668E+00	.1004E+01	.9958E+00	.3508E+01	-.9986E+00	.7530E-02	-.4279E-02
2	.9633E+00	.9706E+00	.9986E+00	-.7530E-02	.9668E+00	.1004E+01	.9958E+00	.3508E+01	-.9986E+00	.7530E-02	-.4279E-02
3	.9605E+00	.9685E+00	.9985E+00	-.8101E-02	.9645E+00	.1005E+01	.9955E+00	.3509E+01	-.9985E+00	.8101E-02	-.4601E-02
4	.9542E+00	.9639E+00	.9983E+00	-.9419E-02	.9593E+00	.1005E+01	.9947E+00	.3512E+01	-.9983E+00	.9419E-02	-.5340E-02
5	.9440E+00	.9566E+00	.9982E+00	-.1157E-01	.9512E+00	.1004E+01	.9937E+00	.3517E+01	-.9983E+00	.2797E-01	-.6533E-02
6	.9300E+00	.9467E+00	.9982E+00	-.1454E-01	.9405E+00	.1004E+01	.9926E+00	.3525E+01	-.9989E+00	.4966E-01	-.8161E-02
7	.9132E+00	.9347E+00	.9985E+00	-.1820E-01	.9279E+00	.1004E+01	.9914E+00	.3536E+01	-.9992E+00	.5563E-01	-.1013E-01
8	.8952E+00	.9220E+00	.9991E+00	-.2219E-01	.9151E+00	.1003E+01	.9907E+00	.3550E+01	-.9998E+00	.5960E-01	-.1222E-01
9	.8788E+00	.9105E+00	.1000E+01	-.2593E-01	.9041E+00	.1002E+01	.9907E+00	.3564E+01	-.1001E+01	.6333E-01	-.1414E-01
10	.8675E+00	.9025E+00	.1002E+01	-.2858E-01	.8976E+00	.1001E+01	.9918E+00	.3578E+01	-.1002E+01	.6479E-01	-.1546E-01
11	.8653E+00	.9009E+00	.1004E+01	-.2915E-01	.8986E+00	.1002E+01	.9944E+00	.3586E+01	-.1004E+01	.6576E-01	-.1571E-01
12	.8765E+00	.9084E+00	.1006E+01	-.2664E-01	.9099E+00	.1003E+01	.9987E+00	.3585E+01	-.1005E+01	.6401E-01	-.1440E-01
13	.9044E+00	.9273E+00	.1008E+01	-.2039E-01	.9338E+00	.1005E+01	.1004E+01	.3573E+01	-.9991E+00	.5788E-01	-.1115E-01
14	.9504E+00	.9589E+00	.1009E+01	-.1037E-01	.9710E+00	.1008E+01	.1011E+01	.3549E+01	-.1006E+01	.4672E-01	-.5786E-02
15	.1014E+01	.1003E+01	.1010E+01	.2728E-02	.1021E+01	.1010E+01	.1017E+01	.3515E+01	-.1005E+01	.2005E-01	.1596E-02
16	.1091E+01	.1057E+01	.1009E+01	.1769E-01	.1079E+01	.1010E+01	.1022E+01	.3476E+01	-.1010E+01	-.1625E-01	.1059E-01
17	.1176E+01	.1116E+01	.1007E+01	.3308E-01	.1143E+01	.1008E+01	.1026E+01	.3435E+01	-.1009E+01	-.3544E-01	.2055E-01
18	.1263E+01	.1177E+01	.1004E+01	.4767E-01	.1206E+01	.1005E+01	.1028E+01	.3396E+01	-.1009E+01	-.5409E-01	.3069E-01
19	.1344E+01	.1234E+01	.1000E+01	.6036E-01	.1263E+01	.1001E+01	.1029E+01	.3360E+01	-.1025E+01	-.8898E-01	.4010E-01
20	.1410E+01	.1280E+01	.9964E+00	.7024E-01	.1307E+01	.9984E+00	.1028E+01	.3330E+01	-.1074E+01	-.1195E+00	.4780E-01
21	.1453E+01	.1309E+01	.9931E+00	.7646E-01	.1333E+01	.9970E+00	.1026E+01	.3308E+01	-.1069E+01	-.1284E+00	.5282E-01
22	.1470E+01	.1319E+01	.9908E+00	.7885E-01	.1341E+01	.9971E+00	.1024E+01	.3296E+01	-.1054E+01	-.8473E-01	.5479E-01
23	.1466E+01	.1316E+01	.9900E+00	.7824E-01	.1336E+01	.9977E+00	.1023E+01	.3294E+01	-.9453E+00	.1211E+00	.5432E-01
24	.1454E+01	.1308E+01	.9904E+00	.7656E-01	.1328E+01	.9982E+00	.1023E+01	.3298E+01	-.9942E+00	-.3184E-02	.5294E-01
25	.1442E+01	.1301E+01	.9914E+00	.7497E-01	.1321E+01	.9981E+00	.1023E+01	.3305E+01	-.1002E+01	-.5763E-01	.5156E-01
26	.1433E+01	.1295E+01	.9923E+00	.7386E-01	.1317E+01	.9976E+00	.1024E+01	.3311E+01	-.9983E+00	-.7222E-01	5054E-01
27	.1428E+01	.1293E+01	.9926E+00	.7323E-01	.1314E+01	.9970E+00	.1024E+01	.3314E+01	-.9930E+00	-.7338E-01	.4995E-01
28	.1426E+01	.1292E+01	.9926E+00	.7291E-01	.1313E+01	.9964E+00	.1023E+01	.3316E+01	-.9890E+00	-.6036E-01	.4971E-01
29	.1426E+01	.1292E+01	.9924E+00	.7278E-01	.1313E+01	.9959E+00	.1023E+01	.3315E+01	-.9879E+00	-.4258E-01	.4971E-01
30	.1427E+01	.1294E+01	.9921E+00	.7276E-01	.1313E+01	.9956E+00	.1023E+01	.3314E+01	-.9849E+00	-.4530E-01	.4985E-01
31	.1429E+01	.1295E+01	.9917E+00	.7279E-01	.1314E+01	.9954E+00	.1022E+01	.3313E+01	-.9890E+00	-.1976E-01	.5005E-01
32	.1431E+01	.1296E+01	.9913E+00	.7284E-01	.1315E+01	.9954E+00	.1022E+01	.3310E+01	-.9963E+00	.7412E-02	.5030E-01
33	.1434E+01	.1297E+01	.9908E+00	.7292E-01	.1315E+01	.9957E+00	.1021E+01	.3308E+01	-.1002E+01	.2419E-01	.5056E-01

34	.1436E+01	.1298E+01	.9902E+00	.7301E-01	.1315E+01	.9961E+00	.1021E+01	.3305E+01	-.1017E+01	.5777E-01	.5083E-01
35	.1438E+01	.1299E+01	.9896E+00	.7313E-01	.1315E+01	.9968E+00	.1020E+01	.3301E+01	-.1023E+01	.6575E-01	.5110E-01
36	.1440E+01	.1300E+01	.9889E+00	.7327E-01	.1315E+01	.9975E+00	.1019E+01	.3297E+01	-.1024E+01	.6422E-01	.5133E-01
37	.1441E+01	.1300E+01	.9882E+00	.7339E-01	.1314E+01	.9983E+00	.1019E+01	.3294E+01	-.1056E+01	.1159E+00	.5148E-01
38	.1442E+01	.1300E+01	.9874E+00	.7354E-01	.1312E+01	.9990E+00	.1018E+01	.3290E+01	-.1082E+01	.1478E+00	.5153E-01
39	.1441E+01	.1299E+01	.9867E+00	.7366E-01	.1310E+01	.9997E+00	.1017E+01	.3287E+01	-.1036E+01	.7060E-01	.5145E-01
40	.1438E+01	.1296E+01	.9861E+00	.7352E-01	.1306E+01	.1000E+01	.1016E+01	.3285E+01	-.9670E+00	-.3109E-01	.5114E-01
41	.1433E+01	.1293E+01	.9856E+00	.7291E-01	.1301E+01	.1000E+01	.1015E+01	.3286E+01	-.8679E+00	-.1364E+00	.5046E-01
42	.1423E+01	.1287E+01	.9854E+00	.7174E-01	.1294E+01	.9999E+00	.1014E+01	.3288E+01	-.9693E+00	-.2329E-01	.4935E-01
43	.1410E+01	.1279E+01	.9853E+00	.7019E-01	.1284E+01	.9998E+00	.1013E+01	.3292E+01	-.1082E+01	.1139E+00	.4784E-01
44	.1395E+01	.1268E+01	.9852E+00	.6847E-01	.1273E+01	.1000E+01	.1011E+01	.3296E+01	-.1065E+01	.9376E-01	.4607E-01
45	.1379E+01	.1258E+01	.9851E+00	.6660E-01	.1261E+01	.1001E+01	.1010E+01	.3300E+01	-.1058E+01	.8673E-01	.4420E-01
46	.1363E+01	.1247E+01	.9851E+00	.6457E-01	.1249E+01	.1001E+01	.1009E+01	.3304E+01	-.1134E+01	.1815E+00	.4236E-01
47	.1357E+01	.1240E+01	.9825E+00	.6219E-01	.1237E+01	.1005E+01	.1006E+01	.3293E+01	-.1207E+01	.2690E+00	.4165E-01
48	.1341E+01	.1228E+01	.9830E+00	.5959E-01	.1225E+01	.1005E+01	.1005E+01	.3299E+01	-.8010E+00	-.2014E+00	.3974E-01
49	.1319E+01	.1214E+01	.9840E+00	.5618E-01	.1211E+01	.1005E+01	.1005E+01	.3310E+01	-.1940E+00	-.8355E+00	.3717E-01
50	.1293E+01	.1198E+01	.9853E+00	.5185E-01	.1194E+01	.1004E+01	.1004E+01	.3324E+01	.6955E-01	-.1025E+01	.3411E-01
51	.1264E+01	.1179E+01	.9867E+00	.4703E-01	.1177E+01	.1004E+01	.1004E+01	.3339E+01	.2298E+00	-.1053E+01	.3083E-01
52	.1237E+01	.1162E+01	.9883E+00	.4239E-01	.1160E+01	.1003E+01	.1004E+01	.3355E+01	.3504E+00	-.9577E+00	.2769E-01
53	.1214E+01	.1147E+01	.9897E+00	.3848E-01	.1145E+01	.1002E+01	.1003E+01	.3370E+01	.4922E+00	-.7751E+00	.2495E-01
54	.1194E+01	.1135E+01	.9910E+00	.3535E-01	.1134E+01	.9999E+00	.1003E+01	.3384E+01	.6616E+00	-.5430E+00	.2265E-01
55	.1177E+01	.1125E+01	.9922E+00	.3255E-01	.1124E+01	.9990E+00	.1003E+01	.3396E+01	.7767E+00	-.4495E+00	.2068E-01
56	.1163E+01	.1115E+01	.9931E+00	.2995E-01	.1114E+01	.9989E+00	.1003E+01	.3405E+01	.8344E+00	-.4517E+00	.1897E-01
57	.1150E+01	.1106E+01	.9940E+00	.2786E-01	.1107E+01	.9979E+00	.1003E+01	.3414E+01	.8871E+00	-.3687E+00	.1746E-01
58	.1134E+01	.1099E+01	.9963E+00	.2645E-01	.1101E+01	.9939E+00	.1005E+01	.3434E+01	.9285E+00	-.2765E+00	.1565E-01
59	.1128E+01	.1095E+01	.9970E+00	.2543E-01	.1098E+01	.9938E+00	.1005E+01	.3438E+01	.9618E+00	-.1761E+00	.1494E-01
60	.1122E+01	.1091E+01	.9975E+00	.2438E-01	.1094E+01	.9940E+00	.1005E+01	.3443E+01	.9779E+00	-.2150E+00	.1426E-01
61	.1116E+01	.1086E+01	.9981E+00	.2323E-01	.1090E+01	.9943E+00	.1006E+01	.3447E+01	.9832E+00	-.2572E+00	.1351E-01
62	.1109E+01	.1081E+01	.9988E+00	.2196E-01	.1086E+01	.9945E+00	.1006E+01	.3452E+01	.9859E+00	-.2234E+00	.1270E-01
63	.1100E+01	.1075E+01	.9997E+00	.2036E-01	.1080E+01	.9948E+00	.1007E+01	.3459E+01	.9942E+00	-.2159E+00	.1171E-01
64	.1089E+01	.1067E+01	.1001E+01	.1822E-01	.1073E+01	.9951E+00	.1007E+01	.3466E+01	.1005E+01	-.1857E+00	.1042E-01
65	.1075E+01	.1056E+01	.1002E+01	.1533E-01	.1063E+01	.9955E+00	.1007E+01	.3476E+01	.1016E+01	-.1485E+00	.8735E-02
66	.1058E+01	.1044E+01	.1002E+01	.1176E-01	.1051E+01	.9960E+00	.1007E+01	.3485E+01	.1051E+01	-.2166E+00	.6716E-02
67	.1040E+01	.1031E+01	.1003E+01	.7950E-02	.1037E+01	.9965E+00	.1006E+01	.3494E+01	.1037E+01	-.2098E+00	.4613E-02
68	.1023E+01	.1019E+01	.1003E+01	.4431E-02	.1024E+01	.9970E+00	.1005E+01	.3501E+01	.1021E+01	-.1475E+00	.2707E-02
69	.1010E+01	.1009E+01	.1002E+01	.1604E-02	.1013E+01	.9975E+00	.1003E+01	.3506E+01	.1016E+01	-.1014E+00	.1188E-02
70	.1001E+01	.1002E+01	.1001E+01	-.3164E-03	.1004E+01	.9980E+00	.1002E+01	.3507E+01	.1008E+01	-.3684E-01	.1433E-03
71	.9963E+00	.9985E+00	.1001E+01	-.1352E-02	.9992E+00	.9984E+00	.1000E+01	.3507E+01	.1026E+01	-.7114E-01	-.4339E-03
72	.9945E+00	.9971E+00	.1000E+01	-.1652E-02	.9970E+00	.9986E+00	.9998E+00	.3506E+01	.1013E+01	-.6794E-01	-.6367E-03
73	.9945E+00	.9971E+00	.1000E+01	-.1652E-02	.9970E+00	.9986E+00	.9998E+00	.3506E+01	.1000E+01	.2899E-02	-.6369E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.1282E+01	.9000E+02	.8151E+01	0.	-.2500E+00	-.5829E-12	0.	-.1282E-10	-.5127E+01	.9925E+00
2	.1282E+01	.8600E+02	.8151E+01	-.1856E-05	-.2500E+00	-.1598E-08	-.6724E-05	-.4263E-11	-.5127E+01	.9925E+00
3	.1282E+01	.8200E+02	.8151E+01	-.1504E-05	-.2500E+00	-.7274E-08	-.5449E-05	.3643E-13	-.5127E+01	.9918E+00
4	.1282E+01	.7800E+02	.8151E+01	-.1621E-05	-.2500E+00	-.2918E-07	-.5860E-05	-.3643E-13	-.5127E+01	.9899E+00
5	.1282E+01	.7400E+02	.8151E+01	-.1780E-05	-.2500E+00	-.1135E-06	-.6399E-05	.8423E-01	-.5127E+01	.9868E+00
6	.1315E+01	.7000E+02	.8020E+01	-.1893E-05	-.2500E+00	-.4618E-06	-.6745E-05	.1850E+00	-.5259E+01	.9824E+00
7	.1355E+01	.6600E+02	.7870E+01	-.1953E-05	-.2500E+00	-.1974E-05	-.6874E-05	.2031E+00	-.5419E+01	.9770E+00
8	.1398E+01	.6200E+02	.7720E+01	-.1933E-05	-.2500E+00	-.8861E-05	-.6691E-05	.2094E+00	-.5591E+01	.9709E+00
9	.1444E+01	.5800E+02	.7570E+01	-.1807E-05	-.2500E+00	-.4194E-04	-.6124E-05	.2161E+00	-.5777E+01	.9652E+00
10	.1495E+01	.5400E+02	.7421E+01	-.1570E-05	-.2500E+00	-.2104E-03	-.5162E-05	.2161E+00	-.5978E+01	.9612E+00
11	.1549E+01	.5000E+02	.7281E+01	-.1233E-05	-.2503E+00	-.1120E-02	-.3858E-05	.2258E+00	-.6189E+01	.9606E+00
12	.1619E+01	.4601E+02	.7129E+01	-.8138E-06	-.2518E+00	-.6499E-02	-.2302E-05	.2389E+00	-.6425E+01	.9649E+00
13	.1923E+01	.4207E+02	.6986E+01	-.3222E-06	-.2848E+00	-.4714E-01	-.6031E-06	.2467E+00	-.6709E+01	.9752E+00
14	.2309E+01	.3903E+02	.6873E+01	.4995E-07	-.3340E+00	-.2774E-01	.6348E-06	.2481E+00	-.6893E+01	.9911E+00
15	.2894E+01	.3610E+02	.6771E+01	.2797E-06	-.3976E+00	-.1006E+00	.1337E-05	.1597E+00	-.7239E+01	.1011E+01
16	.3517E+01	.3403E+02	.6762E+01	.3964E-06	-.4904E+00	-.3856E-01	.1655E-05	.1057E-01	-.7171E+01	.1032E+01
17	.3635E+01	.3202E+02	.6765E+01	.5034E-06	-.5010E+00	-.2636E-01	.1981E-05	-.1658E-01	-.7256E+01	.1054E+01
18	.3791E+01	.3004E+02	.6772E+01	.5574E-06	-.5107E+00	-.5120E-01	.2118E-05	-.4523E-01	-.7426E+01	.1073E+01
19	.4144E+01	.2810E+02	.6789E+01	.5482E-06	-.5311E+00	-.1510E+00	.2032E-05	-.1935E+00	-.7859E+01	.1089E+01
20	.6671E+01	.2624E+02	.6865E+01	.3549E-06	-.7038E+00	-.5932E+00	.1288E-05	-.1895E+00	-.9639E+01	.1102E+01
21	.9558E+01	.2521E+02	.6846E+01	.2569E-06	-.1039E+01	-.7493E+00	.9128E-06	-.2428E+00	-.9372E+01	.1110E+01
22	.1667E+02	.2428E+02	.6916E+01	.1545E-06	-.1514E+01	-.1696E+01	.5369E-06	.2286E+00	-.1075E+02	.1114E+01
23	.2304E+02	.2392E+02	.6819E+01	.1159E-06	-.2648E+01	-.1593E+01	.3928E-06	.1527E+01	-.7783E+01	.1114E+01

24	.2468E+02	.2361E+02	.6783E+01	.1088E-06	-.3204E+01	-.1094E+01	.3580E-06	.5573E+00	-.7513E+01	.1111E+01
25	.2597E+02	.2331E+02	.6773E+01	.1036E-06	-.3456E+01	-.6527E+00	.3316E-06	.1370E+00	-.7490E+01	.1109E+01
26	.2729E+02	.2303E+02	.6773E+01	.1015E-06	-.3587E+01	-.3024E+00	.3184E-06	.1447E-01	-.7608E+01	.1106E+01
27	.2826E+02	.2275E+02	.6772E+01	.1028E-06	-.3668E+01	-.1567E-01	.3182E-06	-.1171E-02	-.7703E+01	.1105E+01
28	.2897E+02	.2248E+02	.6773E+01	.1052E-06	-.3723E+01	.2272E+00	.3217E-06	.9971E-01	-.7789E+01	.1104E+01
29	.2963E+02	.2222E+02	.6765E+01	.1067E-06	-.3767E+01	.4434E+00	.3220E-06	.2438E+00	-.7894E+01	.1104E+01
30	.3024E+02	.2195E+02	.6756E+01	.1074E-06	-.3803E+01	.6401E+00	.3191E-06	.2279E+00	-.7989E+01	.1104E+01
31	.3072E+02	.2169E+02	.6750E+01	.1078E-06	-.3834E+01	.8193E+00	.3150E-06	.4388E+00	-.8106E+01	.1104E+01
32	.3094E+02	.2142E+02	.6728E+01	.1086E-06	-.3865E+01	.1007E+01	.3115E-06	.6588E+00	-.8177E+01	.1104E+01
33	.3086E+02	.2116E+02	.6708E+01	.1098E-06	-.3879E+01	.1183E+01	.3090E-06	.7890E+00	-.8196E+01	.1105E+01
34	.2931E+02	.2089E+02	.6677E+01	.1160E-06	-.3894E+01	.1365E+01	.3194E-06	.9952E+00	-.7877E+01	.1106E+01
35	.2778E+02	.2062E+02	.6640E+01	.1221E-06	-.3902E+01	.1561E+01	.3284E-06	.9947E+00	-.7517E+01	.1107E+01
36	.2643E+02	.2035E+02	.6605E+01	.1275E-06	-.3900E+01	.1768E+01	.3359E-06	.9342E+00	-.7200E+01	.1108E+01
37	.2520E+02	.2008E+02	.6569E+01	.1328E-06	-.3869E+01	.1998E+01	.3437E-06	.1209E+01	-.7137E+01	.1109E+01
38	.2218E+02	.1978E+02	.6509E+01	.1491E-06	-.3803E+01	.2296E+01	.3803E-06	.1238E+01	-.6580E+01	.1109E+01
39	.1981E+02	.1948E+02	.6458E+01	.1642E-06	-.3648E+01	.2622E+01	.4139E-06	.7618E+00	-.5978E+01	.1110E+01
40	.1821E+02	.1918E+02	.6432E+01	.1766E-06	-.3374E+01	.2911E+01	.4432E-06	.2925E+00	-.5652E+01	.1110E+01
41	.1644E+02	.1886E+02	.6425E+01	.1959E-06	-.2998E+01	.3100E+01	.4938E-06	-.1319E+00	-.5347E+01	.1108E+01
42	.1430E+02	.1853E+02	.6448E+01	.2278E-06	-.2581E+01	.3058E+01	.5806E-06	.3490E+00	-.5954E+01	.1106E+01
43	.1274E+02	.1808E+02	.6377E+01	.2981E-06	-.2363E+01	.2791E+01	.6634E-06	.8000E+00	-.6412E+01	.1103E+01
44	.1217E+02	.1758E+02	.6311E+01	.2688E-06	-.2304E+01	.2731E+01	.7036E-06	.7590E+00	-.6160E+01	.1100E+01
45	.1188E+02	.1702E+02	.6253E+01	.1410E-07	-.2330E+01	.2707E+01	.7150E-06	.6900E+00	-.5880E+01	.1097E+01
46	.1256E+02	.1654E+02	.6197E+01	.1033E-05	-.2569E+01	.2783E+01	.4767E-06	.1002E+01	-.5972E+01	.1093E+01
47	.1439E+02	.1607E+02	.6093E+01	-.1098E-05	-.2889E+01	.3226E+01	.4125E-06	.1318E+01	-.6452E+01	.1095E+01
48	.2146E+02	.1564E+02	.5014E+01	-.1149E-06	-.2742E+01	.5855E+01	.5003E-06	-.2363E+00	-.7320E+01	.1092E+01
49	.1905E+02	.1538E+02	.6115E+01	-.2408E-06	-.1113E+01	.5708E+01	.5495E-06	-.2551E+01	-.4031E+01	.1086E+01
50	.1764E+02	.1521E+02	.6282E+01	-.2047E-06	.2629E-01	.5481E+01	.5539E-06	-.3230E+01	-.2286E+01	.1079E+01
51	.1630E+02	.1513E+02	.6482E+01	-.1662E-06	.8685E+00	.5098E+01	.5604E-06	-.3328E+01	-.7679E+00	.1072E+01
52	.1527E+02	.1512E+02	.6690E+01	-.1326E-06	.1553E+01	.4723E+01	.5767E-06	-.3007E+01	.6905E+00	.1065E+01
53	.1437E+02	.1522E+02	.6875E+01	-.1106E-06	.2193E+01	.4298E+01	.6162E-06	-.2404E+01	.1841E+01	.1058E+01
54	.1372E+02	.1538E+02	.7025E+01	-.9372E-07	.2824E+01	.3794E+01	.6571E-06	-.1682E+01	.2598E+01	.1052E+01
55	.1327E+02	.1558E+02	.7131E+01	-.9759E-07	.3304E+01	.3064E+01	.7031E-06	-.1038E+01	.2972E+01	.1047E+01
56	.1089E+02	.1580E+02	.7246E+01	.2111E-07	.3274E+01	.2309E+01	.8524E-06	-.1300E+01	.2402E+01	.1043E+01
57	.9374E+01	.1604E+02	.7361E+01	-.6212E-06	.3121E+01	.1733E+01	.8300E-06	-.1042E+01	.2425E+01	.1039E+01
58	.8181E+01	.1631E+02	.7468E+01	.9761E-06	.2926E+01	.1281E+01	.9606E-06	-.7761E+00	.2456E+01	.1032E+01
59	.7288E+01	.1664E+02	.7551E+01	.2226E-06	.2701E+01	.8827E+00	.1337E-05	-.5176E+00	.2529E+01	.1030E+01
60	.6331E+01	.1701E+02	.7610E+01	.5366E-06	.2399E+01	.5495E+00	.1650E-05	-.6155E+00	.2498E+01	.1029E+01
61	.5542E+01	.1743E+02	.7745E+01	.6555E-06	.2114E+01	.4544E+00	.2027E-05	-.7178E+00	.2467E+01	.1028E+01
62	.4997E+01	.1790E+02	.7869E+01	.7731E-06	.1936E+01	.3787E+00	.2419E-05	-.6206E+00	.2460E+01	.1026E+01
63	.4569E+01	.1841E+02	.7993E+01	.8889E-06	.1818E+01	.2840E+00	.2824E-05	-.5955E+00	.2421E+01	.1024E+01
64	.4156E+01	.1896E+02	.8126E+01	.1002E-05	.1716E+01	.1560E+00	.3246E-05	-.4908E+00	.2377E+01	.1021E+01
65	.3634E+01	.1955E+02	.8230E+01	.1130E-05	.1565E+01	-.8377E-02	.3748E-05	-.3801E+00	.2325E+01	.1018E+01
66	.2941E+01	.2024E+02	.8370E+01	.1302E-05	.1315E+01	-.1436E+00	.4440E-05	-.5075E+00	.2292E+01	.1013E+01
67	.2340E+01	.2111E+02	.8575E+01	.1425E-05	.1103E+01	-.6076E-01	.5017E-05	-.4616E+00	.2153E+01	.1009E+01
68	.2048E+01	.2207E+02	.8728E+01	.1323E-05	.1016E+01	-.4652E-01	.4832E-05	-.3053E+00	.2030E+01	.1004E+01
69	.1888E+01	.2310E+02	.8873E+01	.1060E-05	.9556E+00	-.7851E-01	.4049E-05	-.2024E+00	.1992E+01	.1001E+01
70	.1761E+01	.2418E+02	.8943E+01	.7578E-06	.8725E+00	-.1527E+00	.3060E-05	-.7251E-01	.2031E+01	.9989E+00
71	.1504E+01	.2540E+02	.8955E+01	.5526E-06	.6871E+00	-.2326E+00	.2394E-05	-.1444E+00	.2238E+01	.9978E+00
72	.1302E+01	.2716E+02	.9135E+01	.1074E-05	.5613E+00	-.8441E-01	.4909E-05	-.1519E+00	.2342E+01	.9975E+00
73	.1360E+01	.2900E+02	.9189E+01	0.	.5305E+00	.1547E-12	0.	.1167E-01	.2564E+01	.9975E+00

SECOND INDEX= 13

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9581E+00	.9656E+00	.9981E+00	-.8612E-02	.9611E+00	.1006E+01	.9952E+00	.3507E+01	-.9981E+00	.8612E-02	-.4883E-02
2	.9581E+00	.9656E+00	.9981E+00	-.8612E-02	.9611E+00	.1006E+01	.9952E+00	.3507E+01	-.9981E+00	.8612E-02	-.4883E-02
3	.9554E+00	.9635E+00	.9980E+00	-.9178E-02	.9587E+00	.1006E+01	.9948E+00	.3508E+01	-.9980E+00	.9177E-02	-.5201E-02
4	.9491E+00	.9589E+00	.9978E+00	-.1049E-01	.9535E+00	.1007E+01	.9940E+00	.3510E+01	-.9978E+00	.1049E-01	-.5933E-02
5	.9389E+00	.9516E+00	.9976E+00	-.1265E-01	.9454E+00	.1006E+01	.9929E+00	.3515E+01	-.9978E+00	.2828E-01	-.7120E-02
6	.9250E+00	.9416E+00	.9976E+00	-.1565E-01	.9346E+00	.1006E+01	.9917E+00	.3523E+01	-.9982E+00	.4912E-01	-.8747E-02
7	.9080E+00	.9295E+00	.9979E+00	-.1937E-01	.9219E+00	.1006E+01	.9905E+00	.3534E+01	-.9985E+00	.5502E-01	-.1072E-01
8	.8897E+00	.9166E+00	.9985E+00	-.2349E-01	.9088E+00	.1005E+01	.9898E+00	.3548E+01	-.9991E+00	.5910E-01	-.1286E-01
9	.8726E+00	.9045E+00	.9997E+00	-.2745E-01	.8974E+00	.1004E+01	.9899E+00	.3564E+01	-.1000E+01	.6304E-01	-.1486E-01
10	.8600E+00	.8956E+00	.1001E+01	-.3043E-01	.8902E+00	.1004E+01	.9912E+00	.3578E+01	-.1002E+01	.6484E-01	-.1632E-01
11	.8561E+00	.8928E+00	.1004E+01	-.3144E-01	.8903E+00	.1003E+01	.9941E+00	.3589E+01	-.1004E+01	.6624E-01	-.1678E-01
12	.8649E+00	.8988E+00	.1006E+01	-.2944E-01	.9005E+00	.1004E+01	.9986E+00	.3592E+01	-.1005E+01	.6488E-01	-.1576E-01

13	.8899E+00	.9162E+00	.1009E+01	-.2370E-01	.9232E+00	.1006E+01	.1005E+01	.3583E+01	-.1001E+01	.5926E-01	-.1283E-01
14	.9331E+00	.9463E+00	.1011E+01	-.1407E-01	.9593E+00	.1008E+01	.1011E+01	.3563E+01	-.1007E+01	.4835E-01	-.7796E-02
15	.9940E+00	.9890E+00	.1012E+01	-.1166E-02	.1008E+01	.1010E+01	.1018E+01	.3532E+01	-.1007E+01	.2264E-01	-.6984E-03
16	.1070E+01	.1042E+01	.1011E+01	.1387E-01	.1067E+01	.1009E+01	.1024E+01	.3494E+01	-.1012E+01	-.1241E-01	.8121E-02
17	.1155E+01	.1103E+01	.1009E+01	.2962E-01	.1131E+01	.1007E+01	.1027E+01	.3453E+01	-.1011E+01	-.3343E-01	.1807E-01
18	.1244E+01	.1166E+01	.1006E+01	.4481E-01	.1196E+01	.1003E+01	.1029E+01	.3413E+01	-.1011E+01	-.5422E-01	.2841E-01
19	.1328E+01	.1225E+01	.1002E+01	.5834E-01	.1256E+01	.9992E+00	.1030E+01	.3375E+01	-.1027E+01	-.9617E-01	.3828E-01
20	.1400E+01	.1275E+01	.9982E+00	.6920E-01	.1305E+01	.9962E+00	.1029E+01	.3342E+01	-.1071E+01	-.1226E+00	.4666E-01
21	.1451E+01	.1309E+01	.9944E+00	.7650E-01	.1336E+01	.9950E+00	.1028E+01	.3316E+01	-.1069E+01	-.1353E+00	.5255E-01
22	.1475E+01	.1324E+01	.9915E+00	.7990E-01	.1347E+01	.9957E+00	.1026E+01	.3299E+01	-.1041E+01	-.7169E-01	.5541E-01
23	.1477E+01	.1324E+01	.9901E+00	.8005E-01	.1345E+01	.9973E+00	.1024E+01	.3291E+01	-.9401E+00	.1553E+00	.5565E-01
24	.1468E+01	.1317E+01	.9901E+00	.7866E-01	.1337E+01	.9986E+00	.1024E+01	.3293E+01	-.9887E+00	.2079E-01	.5459E-01
25	.1456E+01	.1309E+01	.9909E+00	.7699E-01	.1330E+01	.9992E+00	.1024E+01	.3298E+01	-.1001E+01	-.5814E-01	.5321E-01
26	.1446E+01	.1302E+01	.9917E+00	.7565E-01	.1324E+01	.9993E+00	.1024E+01	.3303E+01	-.9975E+00	-.8108E-01	.5203E-01
27	.1439E+01	.1298E+01	.9921E+00	.7478E-01	.1320E+01	.9992E+00	.1024E+01	.3307E+01	-.9914E+00	-.8133E-01	.5124E-01
28	.1436E+01	.1296E+01	.9921E+00	.7427E-01	.1317E+01	.9991E+00	.1024E+01	.3308E+01	-.9870E+00	-.6816E-01	.5082E-01
29	.1435E+01	.1295E+01	.9919E+00	.7402E-01	.1316E+01	.9991E+00	.1024E+01	.3307E+01	-.9854E+00	-.5090E-01	.5070E-01
30	.1435E+01	.1295E+01	.9915E+00	.7391E-01	.1315E+01	.9991E+00	.1023E+01	.3306E+01	-.9821E+00	-.5265E-01	.5077E-01
31	.1437E+01	.1296E+01	.9910E+00	.7391E-01	.1315E+01	.9991E+00	.1023E+01	.3304E+01	-.9867E+00	-.2440E-01	.5094E-01
32	.1439E+01	.1297E+01	.9904E+00	.7399E-01	.1316E+01	.9993E+00	.1022E+01	.3301E+01	-.9953E+00	.6188E-02	.5118E-01
33	.1441E+01	.1299E+01	.9898E+00	.7416E-01	.1316E+01	.9996E+00	.1021E+01	.3298E+01	-.1008E+01	.3899E-01	.5147E-01
34	.1444E+01	.1300E+01	.9891E+00	.7441E-01	.1316E+01	.1000E+01	.1021E+01	.3294E+01	-.1032E+01	.8806E-01	.5179E-01
35	.1447E+01	.1301E+01	.9884E+00	.7475E-01	.1317E+01	.1001E+01	.1020E+01	.3290E+01	-.1039E+01	.9543E-01	.5212E-01
36	.1450E+01	.1302E+01	.9876E+00	.7515E-01	.1316E+01	.1001E+01	.1019E+01	.3286E+01	-.1038E+01	.8904E-01	.5242E-01
37	.1452E+01	.1303E+01	.9867E+00	.7556E-01	.1316E+01	.1002E+01	.1018E+01	.3282E+01	-.1089E+01	.1631E+00	.5266E-01
38	.1453E+01	.1304E+01	.9859E+00	.7599E-01	.1315E+01	.1002E+01	.1017E+01	.3278E+01	-.1128E+01	.2067E+00	.5281E-01
39	.1453E+01	.1304E+01	.9851E+00	.7639E-01	.1313E+01	.1003E+01	.1016E+01	.3275E+01	-.1050E+01	.8851E-01	.5286E-01
40	.1452E+01	.1302E+01	.9844E+00	.7650E-01	.1311E+01	.1003E+01	.1015E+01	.3273E+01	-.9577E+00	-.4108E-01	.5270E-01
41	.1448E+01	.1300E+01	.9839E+00	.7612E-01	.1307E+01	.1003E+01	.1014E+01	.3273E+01	-.8843E+00	-.1379E+00	.5222E-01
42	.1440E+01	.1295E+01	.9835E+00	.7517E-01	.1301E+01	.1003E+01	.1013E+01	.3274E+01	-.9699E+00	-.2064E-01	.5132E-01
43	.1429E+01	.1288E+01	.9833E+00	.7382E-01	.1293E+01	.1002E+01	.1012E+01	.3277E+01	-.1086E+01	.1211E+00	.5006E-01
44	.1416E+01	.1280E+01	.9832E+00	.7218E-01	.1283E+01	.1002E+01	.1011E+01	.3280E+01	-.1077E+01	.1105E+00	.4851E-01
45	.1401E+01	.1270E+01	.9832E+00	.7024E-01	.1272E+01	.1003E+01	.1010E+01	.3285E+01	-.1081E+01	.1153E+00	.4676E-01
46	.1384E+01	.1259E+01	.9834E+00	.6789E-01	.1260E+01	.1003E+01	.1009E+01	.3290E+01	-.1124E+01	.1624E+00	.4482E-01
47	.1365E+01	.1246E+01	.9837E+00	.6494E-01	.1246E+01	.1003E+01	.1008E+01	.3297E+01	-.9710E+00	-.1643E-01	.4258E-01
48	.1341E+01	.1231E+01	.9845E+00	.6109E-01	.1230E+01	.1003E+01	.1007E+01	.3307E+01	-.3575E+00	-.6567E+00	.3979E-01
49	.1311E+01	.1211E+01	.9856E+00	.5613E-01	.1210E+01	.1002E+01	.1006E+01	.3322E+01	-.2069E-01	-.9727E+00	.3626E-01
50	.1275E+01	.1189E+01	.9871E+00	.5020E-01	.1187E+01	.1001E+01	.1005E+01	.3340E+01	.1257E+00	-.1050E+01	.3210E-01
51	.1237E+01	.1165E+01	.9889E+00	.4384E-01	.1163E+01	.9993E+00	.1004E+01	.3362E+01	.2228E+00	-.1044E+01	.2769E-01
52	.1201E+01	.1142E+01	.9909E+00	.3771E-01	.1141E+01	.9975E+00	.1003E+01	.3384E+01	.3071E+00	-.9673E+00	.2349E-01
53	.1170E+01	.1122E+01	.9927E+00	.3235E-01	.1121E+01	.9958E+00	.1003E+01	.3404E+01	.4138E+00	-.8347E+00	.1985E-01
54	.1144E+01	.1105E+01	.9944E+00	.2789E-01	.1105E+01	.9945E+00	.1003E+01	.3422E+01	.5481E+00	-.6652E+00	.1684E-01
55	.1123E+01	.1091E+01	.9958E+00	.2412E-01	.1092E+01	.9937E+00	.1003E+01	.3437E+01	.6586E+00	-.5759E+00	.1433E-01
56	.1105E+01	.1079E+01	.9970E+00	.2099E-01	.1081E+01	.9932E+00	.1003E+01	.3449E+01	.7309E+00	-.5442E+00	.1228E-01
57	.1092E+01	.1070E+01	.9978E+00	.1866E-01	.1072E+01	.9932E+00	.1003E+01	.3458E+01	.8044E+00	-.4478E+00	.1077E-01
58	.1084E+01	.1064E+01	.9985E+00	.1712E-01	.1067E+01	.9933E+00	.1003E+01	.3464E+01	.8697E+00	-.3283E+00	.9786E-02
59	.1079E+01	.1060E+01	.9990E+00	.1613E-01	.1063E+01	.9937E+00	.1004E+01	.3467E+01	.9262E+00	-.2075E+00	.9162E-02
60	.1074E+01	.1057E+01	.9993E+00	.1529E-01	.1060E+01	.9941E+00	.1004E+01	.3470E+01	.9424E+00	-.2304E+00	.8662E-02
61	.1070E+01	.1054E+01	.9996E+00	.1450E-01	.1057E+01	.9946E+00	.1004E+01	.3472E+01	.9523E+00	-.2712E+00	.8208E-02
62	.1067E+01	.1051E+01	.9999E+00	.1374E-01	.1054E+01	.9951E+00	.1004E+01	.3474E+01	.9655E+00	-.2446E+00	.7774E-02
63	.1062E+01	.1047E+01	.1000E+01	.1284E-01	.1051E+01	.9956E+00	.1005E+01	.3477E+01	.9785E+00	-.2407E+00	.7269E-02
64	.1057E+01	.1043E+01	.1001E+01	.1162E-01	.1047E+01	.9960E+00	.1005E+01	.3480E+01	.9917E+00	-.2125E+00	.6591E-02
65	.1048E+01	.1037E+01	.1001E+01	.9921E-02	.1042E+01	.9964E+00	.1005E+01	.3485E+01	.1004E+01	-.1757E+00	.5651E-02
66	.1038E+01	.1029E+01	.1002E+01	.7717E-02	.1034E+01	.9968E+00	.1005E+01	.3491E+01	.1029E+01	-.2415E+00	.4447E-02
67	.1027E+01	.1021E+01	.1002E+01	.5265E-02	.1025E+01	.9972E+00	.1004E+01	.3497E+01	.1027E+01	-.2433E+00	.3120E-02
68	.1016E+01	.1013E+01	.1002E+01	.2887E-02	.1016E+01	.9977E+00	.1003E+01	.3501E+01	.1016E+01	-.1688E+00	.1841E-02
69	.1006E+01	.1006E+01	.1001E+01	.8629E-03	.1008E+01	.9981E+00	.1002E+01	.3504E+01	.1010E+01	-.9787E-01	.7474E-03
70	.9994E+00	.1001E+01	.1001E+01	-.6183E-03	.1002E+01	.9985E+00	.1001E+01	.3506E+01	.1002E+01	-.1183E-01	-.6894E-04
71	.9951E+00	.9974E+00	.1000E+01	-.1490E-02	.9975E+00	.9988E+00	.1000E+01	.3506E+01	.1009E+01	-.3966E-01	-.5713E-03
72	.9933E+00	.9960E+00	.1000E+01	-.1823E-02	.9956E+00	.9990E+00	.9994E+00	.3505E+01	.1006E+01	-.4274E-01	-.7794E-03
73	.9933E+00	.9960E+00	.1000E+01	-.1824E-02	.9956E+00	.9990E+00	.9994E+00	.3505E+01	.1001E+01	.3638E-01	-.7796E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.8746E+00	.9000E+02	.7918E+01	0.	-.2500E+00	-.5966E-12	0.	-.1090E-10	-.3499E+01	.9924E+00
2	.8746E+00	.8600E+02	.7918E+01	-.2691E-05	-.2500E+00	-.1575E-08	-.9768E-05	-.3642E-11	-.3499E+01	.9924E+00

3	.8746E+00	.8200E+02	.7918E+01	-.2172E-05	-.2500E+00	-.7133E-08	-.7888E-05	-.2486E-13	-.3499E+01	.9916E+00
4	.8746E+00	.7800E+02	.7918E+01	-.2326E-05	-.2500E+00	-.2859E-07	-.8430E-05	-.2486E-13	-.3499E+01	.9898E+00
5	.8746E+00	.7400E+02	.7918E+01	-.2538E-05	-.2500E+00	-.1117E-06	-.9140E-05	.5481E-01	-.3499E+01	.9867E+00
6	.8994E+00	.7000E+02	.7793E+01	-.2676E-05	-.2500E+00	-.4552E-06	-.9543E-05	.1207E+00	-.3598E+01	.9823E+00
7	.9298E+00	.6600E+02	.7650E+01	-.2741E-05	-.2500E+00	-.1946E-05	-.9631E-05	.1329E+00	-.3719E+01	.9769E+00
8	.9625E+00	.6200E+02	.7507E+01	-.2694E-05	-.2500E+00	-.8733E-05	-.9285E-05	.1373E+00	-.3850E+01	.9707E+00
9	.9979E+00	.5800E+02	.7364E+01	-.2506E-05	-.2500E+00	-.4132E-04	-.8417E-05	.1421E+00	-.3991E+01	.9647E+00
10	.1037E+01	.5400E+02	.7222E+01	-.2168E-05	-.2501E+00	-.2071E-03	-.7020E-05	.1425E+00	-.4145E+01	.9603E+00
11	.1079E+01	.5000E+02	.7090E+01	-.1695E-05	-.2504E+00	-.1102E-02	-.5177E-05	.1494E+00	-.4307E+01	.9589E+00
12	.1135E+01	.4601E+02	.6945E+01	-.1114E-05	-.2527E+00	-.6343E-02	-.3013E-05	.1582E+00	-.4489E+01	.9622E+00
13	.1348E+01	.4209E+02	.6811E+01	-.4453E-06	-.2854E+00	-.4320E-01	-.7175E-06	.1639E+00	-.4698E+01	.9714E+00
14	.1628E+01	.3904E+02	.6702E+01	.6043E-07	-.3348E+00	-.2682E-01	.9351E-06	.1644E+00	-.4851E+01	.9861E+00
15	.2031E+01	.3614E+02	.6609E+01	.3723E-06	-.3978E+00	-.9097E-01	.1862E-05	.1056E+00	-.5083E+01	.1005E+01
16	.2465E+01	.3404E+02	.6598E+01	.5301E-06	-.4867E+00	-.3727E-01	.2269E-05	.7451E-02	-.5065E+01	.1026E+01
17	.2573E+01	.3203E+02	.6603E+01	.6646E-06	-.5014E+00	-.2558E-01	.2658E-05	-.1912E-01	-.5133E+01	.1047E+01
18	.2709E+01	.3005E+02	.6613E+01	.7237E-06	-.5153E+00	-.4917E-01	.2781E-05	-.4768E-01	-.5262E+01	.1067E+01
19	.2999E+01	.2814E+02	.6638E+01	.6950E-06	-.5444E+00	-.1422E+00	.2596E-05	-.1879E+00	-.5557E+01	.1084E+01
20	.4572E+01	.2634E+02	.6738E+01	.4668E-06	-.7186E+00	-.5271E+00	.1700E-05	-.1798E+00	-.6494E+01	.1098E+01
21	.6657E+01	.2530E+02	.6717E+01	.3252E-06	-.1051E+01	-.6907E+00	.1155E-05	-.2215E+00	-.6481E+01	.1108E+01
22	.1063E+02	.2440E+02	.6805E+01	.2086E-06	-.1502E+01	-.1387E+01	.7197E-06	.1808E+00	-.6908E+01	.1114E+01
23	.1446E+02	.2400E+02	.6683E+01	.1552E-06	-.2392E+01	-.1322E+01	.5176E-06	.1262E+01	-.5349E+01	.1116E+01
24	.1593E+02	.2366E+02	.6630E+01	.1397E-06	-.2936E+01	-.9499E+00	.4471E-06	.5257E+00	-.5254E+01	.1115E+01
25	.1719E+02	.2334E+02	.6617E+01	.1291E-06	-.3234E+01	-.5707E+00	.3963E-06	.1044E+00	-.5297E+01	.1113E+01
26	.1842E+02	.2304E+02	.6618E+01	.1250E-06	-.3410E+01	-.2450E+00	.3723E-06	-.2830E-01	-.5405E+01	.1111E+01
27	.1932E+02	.2275E+02	.6620E+01	.1268E-06	-.3523E+01	.3287E-01	.3710E-06	-.3623E-01	-.5484E+01	.1109E+01
28	.1998E+02	.2247E+02	.6622E+01	.1306E-06	-.3599E+01	.2730E+00	.3764E-06	.3551E-01	-.5554E+01	.1108E+01
29	.2055E+02	.2220E+02	.6616E+01	.1333E-06	-.3657E+01	.4890E+00	.3783E-06	.1349E+00	-.5637E+01	.1108E+01
30	.2106E+02	.2193E+02	.6609E+01	.1348E-06	-.3704E+01	.6865E+00	.3760E-06	.1288E+00	-.5711E+01	.1108E+01
31	.2145E+02	.2166E+02	.6604E+01	.1359E-06	-.3740E+01	.8687E+00	.3725E-06	.2954E+00	-.5805E+01	.1108E+01
32	.2161E+02	.2138E+02	.6581E+01	.1375E-06	-.3772E+01	.1056E+01	.3702E-06	.4724E+00	-.5862E+01	.1109E+01
33	.2155E+02	.2111E+02	.6560E+01	.1397E-06	-.3786E+01	.1234E+01	.3693E-06	.6555E+00	-.5905E+01	.1110E+01
34	.2033E+02	.2084E+02	.6520E+01	.1487E-06	-.3795E+01	.1426E+01	.3853E-06	.8742E+00	-.5686E+01	.1111E+01
35	.1911E+02	.2055E+02	.6474E+01	.1575E-06	-.3790E+01	.1630E+01	.4000E-06	.8564E+00	-.5410E+01	.1112E+01
36	.1801E+02	.2027E+02	.6431E+01	.1658E-06	-.3766E+01	.1847E+01	.4136E-06	.7802E+00	-.5165E+01	.1113E+01
37	.1693E+02	.1998E+02	.6388E+01	.1749E-06	-.3689E+01	.2074E+01	.4303E-06	.1058E+01	-.5183E+01	.1114E+01
38	.1454E+02	.1966E+02	.6306E+01	.2010E-06	-.3565E+01	.2368E+01	.4890E-06	.1082E+01	-.4798E+01	.1114E+01
39	.1260E+02	.1932E+02	.6239E+01	.2280E-06	-.3343E+01	.2631E+01	.5504E-06	.5947E+00	-.4237E+01	.1115E+01
40	.1127E+02	.1899E+02	.6211E+01	.2521E-06	-.3048E+01	.2800E+01	.6080E-06	.1871E+00	-.3870E+01	.1115E+01
41	.1003E+02	.1863E+02	.6206E+01	.2841E-06	-.2748E+01	.2878E+01	.6907E-06	-.7710E-01	-.3571E+01	.1114E+01
42	.8850E+01	.1827E+02	.6227E+01	.3264E-06	-.2483E+01	.2836E+01	.8047E-06	.2445E+00	-.3843E+01	.1112E+01
43	.8241E+01	.1777E+02	.6150E+01	.3549E-06	-.2349E+01	.2738E+01	.8864E-06	.5971E+00	-.4205E+01	.1109E+01
44	.8001E+01	.1725E+02	.6082E+01	.3665E-06	-.2322E+01	.2747E+01	.9294E-06	.5507E+00	-.4097E+01	.1106E+01
45	.8139E+01	.1674E+02	.6013E+01	.3550E-06	-.2411E+01	.2881E+01	.9127E-06	.5412E+00	-.4022E+01	.1103E+01
46	.9008E+01	.1626E+02	.5949E+01	.3190E-06	-.2570E+01	.3268E+01	.8064E-06	.6575E+00	-.4341E+01	.1100E+01
47	.1037E+02	.1578E+02	.5867E+01	.1165E-05	-.2295E+01	.4170E+01	.6325E-06	.2975E+00	-.5058E+01	.1095E+01
48	.1152E+02	.1529E+02	.5891E+01	.9542E-06	-.1244E+01	.5216E+01	.6144E-06	-.1160E+01	-.4398E+01	.1090E+01
49	.9746E+01	.1501E+02	.6068E+01	.9969E-06	-.3297E+00	.4575E+01	.7790E-06	-.1971E+01	-.2206E+01	.1082E+01
50	.8979E+01	.1484E+02	.6296E+01	.9611E-06	.2433E+00	.4291E+01	.8474E-06	-.2161E+01	-.1212E+01	.1073E+01
51	.8326E+01	.1474E+02	.6550E+01	.9344E-06	.6841E+00	.4017E+01	.9052E-06	-.2140E+01	-.3934E+00	.1062E+01
52	.7795E+01	.1474E+02	.6810E+01	.9231E-06	.1069E+01	.3775E+01	.9588E-06	-.1955E+01	.3900E+00	.1052E+01
53	.7318E+01	.1484E+02	.7051E+01	.9391E-06	.1450E+01	.3525E+01	.1024E-05	-.1648E+01	.1040E+01	.1043E+01
54	.6966E+01	.1503E+02	.7260E+01	.9686E-06	.1948E+01	.3249E+01	.1082E-05	-.1289E+01	.1504E+01	.1035E+01
55	.6383E+01	.1528E+02	.7421E+01	.1062E-05	.2173E+01	.2808E+01	.1192E-05	-.1077E+01	.1546E+01	.1029E+01
56	.5828E+01	.1551E+02	.7598E+01	.1184E-05	.2361E+01	.2393E+01	.1319E-05	-.9775E+00	.1478E+01	.1024E+01
57	.5184E+01	.1578E+02	.7757E+01	.1340E-05	.2410E+01	.1952E+01	.1500E-05	-.7787E+00	.1521E+01	.1021E+01
58	.4635E+01	.1610E+02	.7898E+01	.5564E-06	.2386E+01	.1555E+01	.1696E-05	-.5621E+00	.1576E+01	.1018E+01
59	.4223E+01	.1646E+02	.7999E+01	.6280E-06	.2305E+01	.1183E+01	.1950E-05	-.3651E+00	.1645E+01	.1017E+01
60	.3785E+01	.1688E+02	.8071E+01	.7364E-06	.2152E+01	.8568E+00	.2296E-05	-.4012E+00	.1599E+01	.1016E+01
61	.3400E+01	.1731E+02	.8211E+01	.8652E-06	.1979E+01	.6685E+00	.2715E-05	-.4643E+00	.1561E+01	.1016E+01
62	.3053E+01	.1779E+02	.8344E+01	.1020E-05	.1827E+01	.5208E+00	.3228E-05	-.4144E+00	.1553E+01	.1015E+01
63	.2742E+01	.1833E+02	.8483E+01	.1195E-05	.1702E+01	.3888E+00	.3832E-05	-.3976E+00	.1521E+01	.1014E+01
64	.2440E+01	.1890E+02	.8634E+01	.1390E-05	.1582E+01	.2570E+00	.4531E-05	-.3403E+00	.1486E+01	.1013E+01
65	.2105E+01	.1954E+02	.8762E+01	.1610E-05	.1437E+01	.1201E+00	.5360E-05	-.2704E+00	.1442E+01	.1011E+01
66	.1744E+01	.2027E+02	.8891E+01	.1852E-05	.1255E+01	.1786E-01	.6314E-05	-.3458E+00	.1385E+01	.1008E+01
67	.1447E+01	.2113E+02	.9158E+01	.2006E-05	.1094E+01	.2156E-01	.7033E-05	-.3280E+00	.1316E+01	.1006E+01

68	.1240E+01	.2209E+02	.9345E+01	.1963E-05	.9947E+00	.3677E-02	.7099E-05	-.2136E+00	.1245E+01	.1003E+01
69	.1115E+01	.2314E+02	.9503E+01	.1683E-05	.9169E+00	-.3663E-01	.6308E-05	-.1198E+00	.1221E+01	.1000E+01
70	.1020E+01	.2428E+02	.9560E+01	.1292E-05	.8240E+00	-.9762E-01	.5050E-05	-.1376E-01	.1239E+01	.9987E+00
71	.9002E+00	.2557E+02	.9530E+01	.9654E-06	.6837E+00	-.1468E+00	.3969E-05	-.4906E-01	.1327E+01	.9977E+00
72	.8475E+00	.2723E+02	.9669E+01	.1713E-05	.5860E+00	-.6290E-01	.7311E-05	-.5881E-01	.1453E+01	.9973E+00
73	.8924E+00	.2900E+02	.9668E+01	0.	.5485E+00	-.1014E-12	0.	.6213E-01	.1627E+01	.9973E+00

SECOND INDEX= 14

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9512E+00	.9594E+00	.9977E+00	-.1006E-01	.9543E+00	.1008E+01	.9944E+00	.3507E+01	-.9977E+00	.1006E-01	-.5692E-02
2	.9512E+00	.9594E+00	.9977E+00	-.1006E-01	.9543E+00	.1008E+01	.9944E+00	.3507E+01	-.9978E+00	.1006E-01	-.5692E-02
3	.9485E+00	.9575E+00	.9976E+00	-.1062E-01	.9520E+00	.1008E+01	.9940E+00	.3508E+01	-.9976E+00	.1062E-01	-.6003E-02
4	.9424E+00	.9530E+00	.9974E+00	-.1192E-01	.9468E+00	.1008E+01	.9931E+00	.3511E+01	-.9974E+00	.1192E-01	-.6722E-02
5	.9323E+00	.9458E+00	.9971E+00	-.1407E-01	.9387E+00	.1008E+01	.9919E+00	.3515E+01	-.9972E+00	.2848E-01	-.7892E-02
6	.9185E+00	.9358E+00	.9970E+00	-.1708E-01	.9279E+00	.1008E+01	.9906E+00	.3523E+01	-.9975E+00	.4793E-01	-.9504E-02
7	.9016E+00	.9237E+00	.9972E+00	-.2085E-01	.9151E+00	.1007E+01	.9895E+00	.3534E+01	-.9978E+00	.5369E-01	-.1148E-01
8	.8830E+00	.9105E+00	.9979E+00	-.2509E-01	.9018E+00	.1007E+01	.9887E+00	.3548E+01	-.9985E+00	.5788E-01	-.1364E-01
9	.8652E+00	.8979E+00	.9992E+00	-.2929E-01	.8899E+00	.1006E+01	.9889E+00	.3564E+01	-.9997E+00	.6203E-01	-.1572E-01
10	.8512E+00	.8880E+00	.1001E+01	-.3267E-01	.8820E+00	.1005E+01	.9904E+00	.3581E+01	-.1002E+01	.6426E-01	-.1735E-01
11	.8450E+00	.8836E+00	.1004E+01	-.3424E-01	.8808E+00	.1005E+01	.9935E+00	.3595E+01	-.1004E+01	.6621E-01	-.1808E-01
12	.8506E+00	.8876E+00	.1007E+01	-.3295E-01	.8893E+00	.1005E+01	.9983E+00	.3601E+01	-.1006E+01	.6543E-01	-.1742E-01
13	.8718E+00	.9025E+00	.1010E+01	-.2797E-01	.9099E+00	.1006E+01	.1005E+01	.3597E+01	-.1002E+01	.6055E-01	-.1495E-01
14	.9108E+00	.9301E+00	.1012E+01	-.1900E-01	.9438E+00	.1008E+01	.1012E+01	.3581E+01	-.1009E+01	.5019E-01	-.1040E-01
15	.9678E+00	.9706E+00	.1014E+01	-.6493E-02	.9908E+00	.1009E+01	.1019E+01	.3553E+01	-.1009E+01	.2593E-01	-.3760E-02
16	.1040E+01	.1023E+01	.1014E+01	.8481E-02	.1049E+01	.1008E+01	.1025E+01	.3518E+01	-.1014E+01	-.7492E-02	.4721E-02
17	.1125E+01	.1083E+01	.1012E+01	.2456E-01	.1113E+01	.1005E+01	.1029E+01	.3477E+01	-.1014E+01	-.3059E-01	.1454E-01
18	.1215E+01	.1148E+01	.1009E+01	.4044E-01	.1181E+01	.1001E+01	.1031E+01	.3436E+01	-.1014E+01	-.5397E-01	.2504E-01
19	.1303E+01	.1211E+01	.1005E+01	.5495E-01	.1245E+01	.9967E+00	.1032E+01	.3396E+01	-.1012E+01	-.7315E-01	.3538E-01
20	.1382E+01	.1266E+01	.1001E+01	.6705E-01	.1298E+01	.9931E+00	.1031E+01	.3360E+01	-.1008E+01	-.8951E-01	.4468E-01
21	.1442E+01	.1307E+01	.9966E+00	.7573E-01	.1336E+01	.9915E+00	.1029E+01	.3330E+01	-.1067E+01	-.1396E+00	.5153E-01
22	.1476E+01	.1328E+01	.9931E+00	.8049E-01	.1354E+01	.9922E+00	.1027E+01	.3308E+01	-.1028E+01	-.5840E-01	.5554E-01
23	.1487E+01	.1333E+01	.9910E+00	.8176E-01	.1356E+01	.9943E+00	.1025E+01	.3295E+01	-.9472E+00	.1799E+00	.5674E-01
24	.1482E+01	.1328E+01	.9904E+00	.8094E-01	.1350E+01	.9963E+00	.1025E+01	.3292E+01	-.9866E+00	.4298E-01	.5620E-01
25	.1471E+01	.1320E+01	.9908E+00	.7940E-01	.1342E+01	.9977E+00	.1025E+01	.3295E+01	-.9998E+00	-.6216E-01	.5497E-01
26	.1461E+01	.1312E+01	.9913E+00	.7794E-01	.1334E+01	.9987E+00	.1025E+01	.3299E+01	-.9957E+00	-.9472E-01	.5372E-01
27	.1452E+01	.1306E+01	.9917E+00	.7687E-01	.1328E+01	.9995E+00	.1025E+01	.3301E+01	-.9885E+00	-.9332E-01	.5277E-01
28	.1447E+01	.1302E+01	.9916E+00	.7617E-01	.1324E+01	.1000E+01	.1025E+01	.3302E+01	-.9836E+00	-.7973E-01	.5218E-01
29	.1445E+01	.1300E+01	.9913E+00	.7576E-01	.1321E+01	.1001E+01	.1024E+01	.3301E+01	-.9815E+00	-.6305E-01	.5191E-01
30	.1445E+01	.1299E+01	.9909E+00	.7553E-01	.1320E+01	.1001E+01	.1024E+01	.3299E+01	-.9779E+00	-.6337E-01	.5185E-01
31	.1445E+01	.1300E+01	.9903E+00	.7546E-01	.1319E+01	.1001E+01	.1023E+01	.3296E+01	-.9836E+00	-.3102E-01	.5192E-01
32	.1447E+01	.1300E+01	.9897E+00	.7554E-01	.1318E+01	.1002E+01	.1022E+01	.3293E+01	-.9943E+00	.4659E-02	.5210E-01
33	.1449E+01	.1301E+01	.9890E+00	.7577E-01	.1318E+01	.1002E+01	.1021E+01	.3290E+01	-.1018E+01	.6046E-01	.5237E-01
34	.1452E+01	.1303E+01	.9882E+00	.7617E-01	.1319E+01	.1003E+01	.1021E+01	.3286E+01	-.1057E+01	.1317E+00	.5270E-01
35	.1455E+01	.1304E+01	.9874E+00	.7673E-01	.1319E+01	.1003E+01	.1020E+01	.3282E+01	-.1065E+01	.1375E+00	.5308E-01
36	.1458E+01	.1306E+01	.9866E+00	.7737E-01	.1319E+01	.1004E+01	.1019E+01	.3277E+01	-.1061E+01	.1229E+00	.5346E-01
37	.1462E+01	.1308E+01	.9856E+00	.7802E-01	.1319E+01	.1004E+01	.1018E+01	.3273E+01	-.1138E+01	.2265E+00	.5382E-01
38	.1464E+01	.1309E+01	.9846E+00	.7871E-01	.1319E+01	.1004E+01	.1017E+01	.3269E+01	-.1197E+01	.2885E+00	.5414E-01
39	.1467E+01	.1310E+01	.9837E+00	.7935E-01	.1319E+01	.1005E+01	.1016E+01	.3265E+01	-.1080E+01	.1262E+00	.5440E-01
40	.1467E+01	.1311E+01	.9828E+00	.7972E-01	.1318E+01	.1005E+01	.1015E+01	.3262E+01	-.9667E+00	-.2593E-01	.5451E-01
41	.1466E+01	.1310E+01	.9820E+00	.7961E-01	.1315E+01	.1005E+01	.1014E+01	.3260E+01	-.9023E+00	-.1093E+00	.5433E-01
42	.1461E+01	.1307E+01	.9815E+00	.7895E-01	.1311E+01	.1005E+01	.1013E+01	.3259E+01	-.9800E+00	-.5767E-02	.5378E-01
43	.1453E+01	.1301E+01	.9811E+00	.7781E-01	.1304E+01	.1005E+01	.1011E+01	.3260E+01	-.1089E+01	.1256E+00	.5284E-01
44	.1442E+01	.1294E+01	.9808E+00	.7620E-01	.1295E+01	.1005E+01	.1010E+01	.3262E+01	-.1085E+01	.1186E+00	.5150E-01
45	.1426E+01	.1284E+01	.9809E+00	.7399E-01	.1284E+01	.1005E+01	.1009E+01	.3267E+01	-.1034E+01	.5769E-01	.4973E-01
46	.1406E+01	.1271E+01	.9813E+00	.7096E-01	.1270E+01	.1005E+01	.1008E+01	.3274E+01	-.8585E+00	-.1380E+00	.4739E-01
47	.1380E+01	.1254E+01	.9821E+00	.6682E-01	.1252E+01	.1005E+01	.1007E+01	.3285E+01	-.4911E+00	-.5175E+00	.4429E-01
48	.1345E+01	.1232E+01	.9833E+00	.6133E-01	.1230E+01	.1004E+01	.1006E+01	.3300E+01	-.1006E+00	-.8990E+00	.4027E-01
49	.1303E+01	.1206E+01	.9851E+00	.5454E-01	.1203E+01	.1003E+01	.1005E+01	.3321E+01	.4588E-01	-.1016E+01	.3538E-01
50	.1256E+01	.1176E+01	.9873E+00	.4679E-01	.1173E+01	.1001E+01	.1003E+01	.3347E+01	.1227E+00	-.1042E+01	.2989E-01
51	.1208E+01	.1146E+01	.9898E+00	.3871E-01	.1143E+01	.9987E+00	.1002E+01	.3376E+01	.1816E+00	-.1030E+01	.2430E-01
52	.1164E+01	.1117E+01	.9923E+00	.3104E-01	.1115E+01	.9963E+00	.1002E+01	.3405E+01	.2403E+00	-.9795E+00	.1911E-01
53	.1126E+01	.1093E+01	.9947E+00	.2431E-01	.1092E+01	.9943E+00	.1002E+01	.3431E+01	.3184E+00	-.8927E+00	.1464E-01
54	.1095E+01	.1072E+01	.9967E+00	.1878E-01	.1072E+01	.9928E+00	.1002E+01	.3453E+01	.4207E+00	-.7792E+00	.1104E-01
55	.1071E+01	.1056E+01	.9983E+00	.1437E-01	.1057E+01	.9921E+00	.1002E+01	.3470E+01	.5172E+00	-.7092E+00	.8229E-02
56	.1053E+01	.1043E+01	.9994E+00	.1107E-01	.1045E+01	.9920E+00	.1002E+01	.3482E+01	.5938E+00	-.6659E+00	.6165E-02

57	.1041E+01	.1035E+01	.1000E+01	.8850E-02	.1037E+01	.9923E+00	.1002E+01	.3490E+01	.6791E+00	-.5674E+00	.4809E-02
58	.1035E+01	.1030E+01	.1001E+01	.7571E-02	.1032E+01	.9929E+00	.1002E+01	.3494E+01	.7709E+00	-.4249E+00	.4050E-02
59	.1032E+01	.1027E+01	.1001E+01	.6902E-02	.1029E+01	.9936E+00	.1002E+01	.3495E+01	.8597E+00	.2791E+00	.3680E-02
60	.1030E+01	.1025E+01	.1001E+01	.6490E-02	.1028E+01	.9943E+00	.1002E+01	.3495E+01	.8885E+00	-.2738E+00	.3484E-02
61	.1029E+01	.1024E+01	.1001E+01	.6190E-02	.1027E+01	.9950E+00	.1003E+01	.3495E+01	.9038E+00	-.3021E+00	.3365E-02
62	.1028E+01	.1023E+01	.1001E+01	.5951E-02	.1026E+01	.9957E+00	.1003E+01	.3494E+01	.9270E+00	-.2816E+00	.3283E-02
63	.1027E+01	.1022E+01	.1001E+01	.5671E-02	.1025E+01	.9963E+00	.1003E+01	.3494E+01	.9455E+00	-.2820E+00	.3175E-02
64	.1026E+01	.1021E+01	.1001E+01	.5235E-02	.1023E+01	.9968E+00	.1003E+01	.3495E+01	.9637E+00	-.2598E+00	.2976E-02
65	.1022E+01	.1018E+01	.1001E+01	.4526E-02	.1021E+01	.9972E+00	.1003E+01	.3496E+01	.9799E+00	-.2279E+00	.2622E-02
66	.1018E+01	.1015E+01	.1001E+01	.3507E-02	.1017E+01	.9976E+00	.1003E+01	.3498E+01	.9995E+00	-.2866E+00	.2094E-02
67	.1012E+01	.1010E+01	.1001E+01	.2283E-02	.1012E+01	.9980E+00	.1002E+01	.3500E+01	.1007E+01	-.2918E+00	.1450E-02
68	.1007E+01	.1006E+01	.1001E+01	.1012E-02	.1008E+01	.9983E+00	.1002E+01	.3502E+01	.1003E+01	-.2032E+00	.7730E-03
69	.1001E+01	.1002E+01	.1001E+01	-.1492E-03	.1003E+01	.9987E+00	.1001E+01	.3504E+01	.1001E+01	-.9765E-01	.1422E-03
70	.9968E+00	.9985E+00	.1000E+01	-.1069E-02	.9988E+00	.9989E+00	.1000E+01	.3504E+01	.1000E+01	.1561E-01	-.3733E-03
71	.9938E+00	.9962E+00	.1000E+01	-.1665E-02	.9958E+00	.9992E+00	.9995E+00	.3505E+01	.9991E+00	.1245E-01	-.7242E-03
72	.9924E+00	.9951E+00	.9999E+00	-.1927E-02	.9943E+00	.9993E+00	.9991E+00	.3504E+01	.9992E+00	.1526E-01	-.8889E-03
73	.9924E+00	.9951E+00	.9999E+00	-.1927E-02	.9943E+00	.9993E+00	.9991E+00	.3504E+01	.1005E+01	.9548E-01	-.8891E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.6155E+00	.9000E+02	.7580E+01	0.	-.2500E+00	.4198E-12	0.	-.9087E-11	-.2462E+01	.9914E+00
2	.6155E+00	.8600E+02	.7580E+01	-.3672E-05	-.2500E+00	-.1523E-08	-.1332E-04	-.3017E-11	-.2462E+01	.9914E+00
3	.6155E+00	.8200E+02	.7580E+01	-.2951E-05	-.2500E+00	-.6828E-08	-.1071E-04	0.	-.2462E+01	.9906E+00
4	.6155E+00	.7800E+02	.7580E+01	-.3137E-05	-.2500E+00	-.2734E-07	-.1137E-04	-.2624E-13	-.2462E+01	.9888E+00
5	.6155E+00	.7400E+02	.7580E+01	-.3395E-05	-.2500E+00	-.1073E-06	-.1222E-04	.3559E-01	-.2462E+01	.9858E+00
6	.6346E+00	.7000E+02	.7464E+01	-.3546E-05	-.2500E+00	-.4383E-06	-.1262E-04	.7854E-01	-.2538E+01	.9815E+00
7	.6580E+00	.6600E+02	.7332E+01	-.3598E-05	-.2500E+00	-.1873E-05	-.1259E-04	.8669E-01	-.2632E+01	.9760E+00
8	.6834E+00	.6200E+02	.7201E+01	-.3507E-05	-.2500E+00	-.8401E-05	-.1199E-04	.8981E-01	-.2733E+01	.9698E+00
9	.7110E+00	.5800E+02	.7069E+01	-.3239E-05	-.2500E+00	-.3972E-04	-.1073E-04	.9320E-01	-.2844E+01	.9636E+00
10	.7412E+00	.5400E+02	.6938E+01	-.2784E-05	-.2501E+00	-.1988E-03	-.8812E-05	.9354E-01	-.2963E+01	.9586E+00
11	.7745E+00	.5000E+02	.6817E+01	-.2164E-05	-.2506E+00	-.1055E-02	-.6364E-05	.9844E-01	-.3090E+01	.9563E+00
12	.8213E+00	.4602E+02	.6684E+01	-.1409E-05	-.2538E+00	-.6009E-02	-.3550E-05	.1044E+00	-.3233E+01	.9584E+00
13	.9747E+00	.4213E+02	.6563E+01	-.5637E-06	-.2862E+00	-.3799E-01	-.6797E-06	.1085E+00	-.3391E+01	.9660E+00
14	.1184E+01	.3906E+02	.6462E+01	.7396E-07	-.3357E+00	-.2511E-01	.1350E-05	.1083E+00	-.3519E+01	.9793E 00
15	.1469E+01	.3619E+02	.6380E+01	.4660E-06	-.3981E+00	-.7869E-01	.2466E-05	.6904E-01	-.3677E+01	.9971E+00
16	.1778E+01	.3406E+02	.6368E+01	.6637E-06	-.4822E+00	-.3479E-01	.2932E-05	.3666E-02	-.3687E+01	.1017E+01
17	.1878E+01	.3204E+02	.6376E+01	.8177E-06	-.5019E+00	-.2408E-01	.3337E-05	-.2214E-01	-.3742E+01	.1038E+01
18	.2000E+01	.3007E+02	.6391E+01	.8717E-06	-.5210E+00	-.4570E-01	.3393E-05	-.5050E-01	-.3843E+01	.1058E+01
19	.2247E+01	.2820E+02	.6426E+01	.8123E-06	-.5615E+00	-.1294E+00	.3055E-05	-.1792E+00	-.4044E+01	.1076E+01
20	.3224E+01	.2647E+02	.6551E+01	.5666E-06	-.7369E+00	-.4458E+00	.2067E-05	-.1680E+00	-.4477E+01	.1091E+01
21	.4734E+01	.2542E+02	.6530E+01	.3802E-06	-.1062E+01	-.6055E+00	.1344E-05	-.1952E+00	-.4570E+01	.1103E+01
22	.6974E+01	.2454E+02	.6633E+01	.2557E-06	-.1487E+01	-.1078E+01	.8712E-06	.1482E+00	-.4584E+01	.1111E+01
23	.9298E+01	.2410E+02	.6488E+01	.1883E-06	-.2176E+01	-.1014E+01	.6118E-06	.1016E+01	-.3799E+01	.1115E+01
24	.1042E+02	.2373E+02	.6414E+01	.1631E-06	-.2666E+01	-.7350E+00	.4996E-06	.4721E+00	-.3777E+01	.1116E+01
25	.1151E+02	.2338E+02	.6397E+01	.1463E-06	-.2980E+01	-.4273E+00	.4213E-06	.6887E-01	-.3854E+01	.1115E+01
26	.1261E+02	.2306E+02	.6403E+01	.1405E-06	-.3190E+01	-.1416E+00	.3877E-06	-.6631E-01	-.3955E+01	.1113E+01
27	.1343E+02	.2275E+02	.6408E+01	.1441E-06	-.3336E+01	.1173E+00	.3889E-06	-.6674E-01	-.4024E+01	.1112E+01
28	.1404E+02	.2246E+02	.6412E+01	.1505E-06	-.3436E+01	.3486E+00	.4007E-06	-.1307E-01	-.4084E+01	.1112E+01
29	.1455E+02	.2217E+02	.6410E+01	.1556E-06	-.3512E+01	.5606E+00	.4083E-06	.5709E-01	-.4153E+01	.1111E+01
30	.1500E+02	.2189E+02	.6405E+01	.1588E-06	-.3571E+01	.7564E+00	.4101E-06	.5834E-01	-.4214E+01	.1112E+01
31	.1533E+02	.2161E+02	.6402E+01	.1613E-06	-.3613E+01	.9385E+00	.4099E-06	.1986E+00	-.4295E+01	.1112E+01
32	.1547E+02	.2133E+02	.6379E+01	.1642E-06	-.3648E+01	.1126E+01	.4109E-06	.3509E+00	-.4348E+01	.1113E+01
33	.1540E+02	.2105E+02	.6356E+01	.1678E-06	-.3658E+01	.1304E+01	.4134E-06	.5808E+00	-.4417E+01	.1114E+01
34	.1443E+02	.2075E+02	.6303E+01	.1799E-06	-.3657E+01	.1504E+01	.4356E-06	.8166E+00	-.4282E+01	.1115E+01
35	.1343E+02	.2045E+02	.6243E+01	.1921E-06	-.3630E+01	.1714E+01	.4565E-06	.7823E+00	-.4069E+01	.1116E+01
36	.1251E+02	.2015E+02	.6187E+01	.2040E-06	-.3572E+01	.1931E+01	.4772E-06	.6874E+00	-.3874E+01	.1117E+01
37	.1152E+02	.1983E+02	.6133E+01	.2190E-06	-.3433E+01	.2135E+01	.5062E-06	.9684E+00	-.3958E+01	.1118E+01
38	.9628E+01	.1946E+02	.6019E+01	.2579E-06	-.3256E+01	.2389E+01	.5909E-06	.9934E+00	-.3687E+01	.1119E+01
39	.8108E+01	.1907E+02	.5927E+01	.3004E-06	-.3004E+01	.2567E+01	.6840E-06	.5164E+00	-.3140E+01	.1119E+01
40	.7144E+01	.1868E+02	.5891E+01	.3367E-06	-.2743E+01	.2655E+01	.7672E-06	.1757E+00	-.2775E+01	.1120E+01
41	.6372E+01	.1829E+02	.5878E+01	.3782E-06	-.2532E+01	.2704E+01	.8712E-06	.1374E-01	-.2531E+01	.1119E+01
42	.5736E+01	.1789E+02	.5887E+01	.4255E-06	-.2375E+01	.2713E+01	.9976E-06	.2037E+00	-.2648E+01	.1118E+01
43	.5584E+01	.1737E+02	.5807E+01	.4427E-06	-.2310E+01	.2781E+01	.1058E-05	.4306E+00	-.2936E+01	.1116E+01
44	.5652E+01	.1684E+02	.5733E+01	.4391E-06	-.2306E+01	.2977E+01	.1067E-05	.4132E+00	-.2984E+01	.1114E+01
45	.6007E+01	.1631E+02	.5660E+01	.4095E-06	-.2296E+01	.3407E+01	.1008E-05	.3191E+00	-.3090E+01	.1111E+01
46	.6250E+01	.1581E+02	.5627E+01	.3811E-06	-.1944E+01	.3796E+01	.9597E-06	.3066E-01	-.3274E+01	.1106E+01

47	.6271E+01	.1526E+02	.5651E+01	-.1234E-06	-.1199E+01	.4136E+01	.9470E-06	-.5377E+00	-.3377E+01	.1100E+01	
48	.5869E+01	.1473E+02	.5798E+01	-.9245E-07	-.4781E+00	.4053E+01	.1014E-05	-.1165E+01	-.2397E+01	.1092E+01	
49	.5205E+01	.1445E+02	.6048E+01	-.4056E-07	-.7234E-01	.3654E+01	.1157E-05	-.1400E+01	-.1233E+01	.1081E+01	
50	.4831E+01	.1426E+02	.6336E+01	.1768E-07	.2118E+00	.3445E+01	.1265E-05	-.1445E+01	-.6889E+00	.1068E+01	
51	.4497E+01	.1416E+02	.6646E+01	.7035E-07	.4481E+00	.3259E+01	.1374E-05	-.1413E+01	-.2405E+00	.1055E+01	
52	.4201E+01	.1415E+02	.6964E+01	.1109E-06	.6688E+00	.3098E+01	.1481E-05	-.1315E+01	.1929E+00	.1042E+01	
53	.3925E+01	.1425E+02	.7272E+01	.1365E-06	.8996E+00	.2940E+01	.1588E-05	-.1160E+01	.5727E+00	.1030E+01	
54	.3708E+01	.1444E+02	.7555E+01	.1445E-06	.1149E+01	.2773E+01	.1674E-05	-.9820E+00	.8575E+00	.1021E+01	
55	.3418E+01	.1471E+02	.7801E+01	.1367E-06	.1383E+01	.2526E+01	.1796E-05	-.8564E+00	.9077E+00	.1014E+01	
56	.3149E+01	.1498E+02	.8056E+01	.1164E-06	.1560E+01	.2277E+01	.1929E-05	-.7701E+00	.8946E+00	.1009E+01	
57	.2857E+01	.1530E+02	.8291E+01	.1158E-06	.1679E+01	.1991E+01	.2114E-05	-.6308E+00	.9536E+00	.1006E+01	
58	.2618E+01	.1564E+02	.8498E+01	.7394E-06	.1763E+01	.1710E+01	.2339E-05	-.4605E+00	.1038E+01	.1005E+01	
59	.2446E+01	.1608E+02	.8642E+01	.8136E-06	.1806E+01	.1409E+01	.2574E-05	-.3055E+00	.1116E+01	.1004E+01	
60	.2249E+01	.1656E+02	.8748E+01	.9137E-06	.1782E+01	.1112E+01	.2905E-05	-.2999E+00	.1075E+01	.1004E+01	
61	.2061E+01	.1703E+02	.8909E+01	.1039E-05	.1712E+01	.8924E+00	.3318E-05	-.3285E+00	.1032E+01	.1005E+01	
62	.1857E+01	.1756E+02	.9066E+01	.1209E-05	.1619E+01	.7033E+00	.3885E-05	-.3022E+00	.1016E+01	.1005E+01	
63	.1654E+01	.1813E+02	.9234E+01	.1424E-05	.1517E+01	.5431E+00	.4619E-05	-.2949E+00	.9847E+00	.1005E+01	
64	.1455E+01	.1875E+02	.9423E+01	.1677E-05	.1412E+01	.4040E+00	.5518E-05	-.2623E+00	.9559E+00	.1005E+01	
65	.1253E+01	.1944E+02	.9595E+01	.1965E-05	.1295E+01	.2776E+00	.6576E-05	-.2197E+00	.9211E+00	.1004E+01	
66	.1055E+01	.2022E+02	.9774E+01	.2258E-05	.1164E+01	.1790E+00	.7716E-05	-.2597E+00	.8670E+00	.1003E+01	
67	.8914E+00	.2108E+02	.1009E+02	.2454E-05	.1041E+01	.1333E+00	.8589E-05	-.2494E+00	.8241E+00	.1002E+01	
68	.7547E+00	.2207E+02	.1033E+02	.2496E-05	.9445E+00	.8720E-01	.8975E-05	-.1623E+00	.7841E+00	.1001E+01	
69	.6687E+00	.2316E+02	.1052E+02	.2244E-05	.8630E+00	.3616E-01	.8318E-05	-.7542E-01	.7717E+00	.9994E+00	
70	.6103E+00	.2437E+02	.1056E+02	.1789E-05	.7787E+00	-.2012E-01	.6871E-05	.1306E-01	.7834E+00	.9983E+00	
71	.5631E+00	.2573E+02	.1047E+02	.1329E-05	.6811E+00	-.6093E-01	.5317E-05	.1163E-01	.8256E+00	.9976E+00	
72	.5687E+00	.2731E+02	.1052E+02	.2131E-05	.6107E+00	-.3337E-01	.8794E-05	.1598E-01	.9304E+00	.9973E+00	
73	.6079E+00	.2900E+02	.1042E+02	0.	.5711E+00	0.	0.	.1037E+00	.1064E+01	.9973E+00	

SECOND INDEX= 15

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9425E+00	.9530E+00	.9976E+00	-.1190E-01	.9472E+00	.1008E+01	.9935E+00	.3511E+01	-.9976E+00	.1190E-01	-.6706E-02
2	.9425E+00	.9530E+00	.9976E+00	-.1190E-01	.9472E+00	.1008E+01	.9935E+00	.3511E+01	-.9976E+00	.1190E-01	-.6706E-02
3	.9399E+00	.9511E+00	.9974E+00	-.1244E-01	.9449E+00	.1008E+01	.9931E+00	.3512E+01	-.9974E+00	.1244E-01	-.7008E-02
4	.9339E+00	.9468E+00	.9972E+00	-.1372E-01	.9399E+00	.1008E+01	.9922E+00	.3514E+01	-.9972E+00	.1372E-01	-.7707E-02
5	.9241E+00	.9398E+00	.9969E+00	-.1584E-01	.9319E+00	.1008E+01	.9909E+00	.3519E+01	-.9970E+00	.2841E-01	-.8846E-02
6	.9106E+00	.9301E+00	.9967E+00	-.1883E-01	.9212E+00	.1008E+01	.9895E+00	.3526E+01	-.9971E+00	.4572E-01	-.1042E-01
7	.8940E+00	.9181E+00	.9969E+00	-.2261E-01	.9086E+00	.1008E+01	.9883E+00	.3537E+01	-.9973E+00	.5122E-01	-.1237E-01
8	.8754E+00	.9048E+00	.9975E+00	-.2694E-01	.8952E+00	.1007E+01	.9876E+00	.3551E+01	-.9979E+00	.5547E-01	-.1453E-01
9	.8570E+00	.8917E+00	.9988E+00	-.3136E-01	.8829E+00	.1006E+01	.9878E+00	.3568E+01	-.9992E+00	.5984E-01	-.1668E-01
10	.8416E+00	.8807E+00	.1001E+01	-.3517E-01	.8740E+00	.1005E+01	.9894E+00	.3586E+01	-.1001E+01	.6255E-01	-.1847E-01
11	.8328E+00	.8745E+00	.1004E+01	-.3742E-01	.8712E+00	.1005E+01	.9926E+00	.3603E+01	-.1004E+01	.6514E-01	-.1950E-01
12	.8345E+00	.8757E+00	.1007E+01	-.3705E-01	.8773E+00	.1005E+01	.9977E+00	.3614E+01	-.1006E+01	.6518E-01	-.1930E-01
13	.8505E+00	.8872E+00	.1011E+01	-.3313E-01	.8947E+00	.1006E+01	.1004E+01	.3616E+01	-.1005E+01	.6130E-01	-.1743E-01
14	.8836E+00	.9109E+00	.1014E+01	-.2519E-01	.9251E+00	.1007E+01	.1012E+01	.3605E+01	-.1011E+01	.5198E-01	-.1357E-01
15	.9347E+00	.9476E+00	.1016E+01	-.1345E-01	.9687E+00	.1008E+01	.1019E+01	.3581E+01	-.1011E+01	.2984E-01	-.7621E-02
16	.1002E+01	.9968E+00	.1017E+01	.1183E-02	.1024E+01	.1007E+01	.1025E+01	.3548E+01	-.1017E+01	-.1498E-02	.2839E-03
17	.1084E+01	.1056E+01	.1015E+01	.1743E-01	.1088E+01	.1004E+01	.1030E+01	.3509E+01	-.1017E+01	-.2670E-01	.9760E-02
18	.1174E+01	.1122E+01	.1013E+01	.3397E-01	.1156E+01	.9995E+00	.1032E+01	.3467E+01	-.1017E+01	-.5289E-01	.2026E-01
19	.1266E+01	.1188E+01	.1009E+01	.4957E-01	.1224E+01	.9942E+00	.1033E+01	.3425E+01	-.1030E+01	-.1075E+00	.3101E-01
20	.1352E+01	.1250E+01	.1004E+01	.6308E-01	.1285E+01	.9896E+00	.1033E+01	.3386E+01	-.1058E+01	-.1256E+00	.4104E-01
21	.1422E+01	.1298E+01	.9997E+00	.7341E-01	.1331E+01	.9869E+00	.1031E+01	.3352E+01	-.1059E+01	-.1400E+00	.4920E-01
22	.1468E+01	.1328E+01	.9957E+00	.7988E-01	.1357E+01	.9868E+00	.1029E+01	.3325E+01	-.1017E+01	-.4440E-01	.5457E-01
23	.1489E+01	.1340E+01	.9929E+00	.8265E-01	.1366E+01	.9886E+00	.1027E+01	.3308E+01	-.9661E+00	.1944E+00	.5702E-01
24	.1491E+01	.1339E+01	.9916E+00	.8280E-01	.1363E+01	.9908E+00	.1026E+01	.3300E+01	-.9904E+00	.5915E-01	.5728E-01
25	.1484E+01	.1332E+01	.9914E+00	.8174E-01	.1356E+01	.9930E+00	.1026E+01	.3299E+01	-.9974E+00	-.7341E-01	.5644E-01
26	.1474E+01	.1324E+01	.9915E+00	.8045E-01	.1348E+01	.9950E+00	.1025E+01	.3300E+01	-.9915E+00	-.1154E+00	.5533E-01
27	.1466E+01	.1317E+01	.9916E+00	.7938E-01	.1340E+01	.9968E+00	.1025E+01	.3300E+01	-.9833E+00	-.1109E+00	.5438E-01
28	.1461E+01	.1312E+01	.9914E+00	.7859E-01	.1335E+01	.9984E+00	.1025E+01	.3299E+01	-.9779E+00	-.9632E-01	.5371E-01
29	.1457E+01	.1309E+01	.9910E+00	.7804E-01	.1330E+01	.9996E+00	.1024E+01	.3298E+01	-.9753E+00	-.8016E-01	.5329E-01
30	.1455E+01	.1307E+01	.9905E+00	.7767E-01	.1327E+01	.1001E+01	.1024E+01	.3295E+01	-.9714E+00	-.7845E-01	.5307E-01
31	.1454E+01	.1306E+01	.9899E+00	.7747E-01	.1325E+01	.1001E+01	.1023E+01	.3293E+01	-.9791E+00	-.4034E-01	.5299E-01
32	.1455E+01	.1305E+01	.9893E+00	.7747E-01	.1323E+01	.1002E+01	.1022E+01	.3290E+01	-.9933E+00	.2379E-02	.5304E-01
33	.1456E+01	.1306E+01	.9885E+00	.7771E-01	.1323E+01	.1003E+01	.1022E+01	.3286E+01	-.1034E+01	.8894E-01	.5323E-01
34	.1459E+01	.1307E+01	.9877E+00	.7819E-01	.1323E+01	.1003E+01	.1021E+01	.3282E+01	-.1096E+01	.1895E+00	.5353E-01
35	.1463E+01	.1309E+01	.9868E+00	.7888E-01	.1323E+01	.1003E+01	.1020E+01	.3278E+01	-.1104E+01	.1917E+00	.5394E-01

36	.1467E+01	.1311E+01	.9859E+00	.7969E-01	.1324E+01	.1004E+01	.1019E+01	.3273E+01	-.1093E+01	.1648E+00	.5441E-01
37	.1471E+01	.1314E+01	.9848E+00	.8052E-01	.1325E+01	.1004E+01	.1018E+01	.3268E+01	-.1206E+01	.3073E+00	.5491E-01
38	.1475E+01	.1316E+01	.9837E+00	.8139E-01	.1326E+01	.1004E+01	.1017E+01	.3263E+01	-.1297E+01	.4014E+00	.5544E-01
39	.1480E+01	.1319E+01	.9826E+00	.8222E-01	.1327E+01	.1004E+01	.1016E+01	.3258E+01	-.1138E+01	.1958E+00	.5597E-01
40	.1484E+01	.1321E+01	.9815E+00	.8282E-01	.1327E+01	.1005E+01	.1014E+01	.3253E+01	-.9995E+00	.1867E-01	.5641E-01
41	.1486E+01	.1322E+01	.9804E+00	.8299E-01	.1326E+01	.1005E+01	.1013E+01	.3248E+01	-.9391E+00	-.5626E-01	.5664E-01
42	.1485E+01	.1321E+01	.9794E+00	.8264E-01	.1323E+01	.1006E+01	.1012E+01	.3245E+01	-.9860E+00	.3738E-02	.5651E-01
43	.1479E+01	.1317E+01	.9787E+00	.8169E-01	.1317E+01	.1006E+01	.1011E+01	.3243E+01	-.1043E+01	.7038E-01	.5592E-01
44	.1469E+01	.1310E+01	.9783E+00	.7998E-01	.1309E+01	.1007E+01	.1009E+01	.3244E+01	-.9472E+00	-.3823E-01	.5471E-01
45	.1452E+01	.1298E+01	.9784E+00	.7726E-01	.1296E+01	.1007E+01	.1008E+01	.3248E+01	-.7128E+00	-.2903E+00	.5268E-01
46	.1425E+01	.1281E+01	.9790E+00	.7318E-01	.1278E+01	.1007E+01	.1007E+01	.3258E+01	-.4298E+00	-.5804E+00	.4961E-01
47	.1389E+01	.1258E+01	.9802E+00	.6747E-01	.1254E+01	.1007E+01	.1005E+01	.3273E+01	-.1856E+00	-.8154E+00	.4531E-01
48	.1341E+01	.1229E+01	.9821E+00	.6006E-01	.1224E+01	.1006E+01	.1004E+01	.3296E+01	-.2944E-01	-.9605E+00	.3981E-01
49	.1286E+01	.1194E+01	.9846E+00	.5119E-01	.1189E+01	.1004E+01	.1003E+01	.3325E+01	.3242E-01	-.1005E+01	.3336E-01
50	.1227E+01	.1157E+01	.9877E+00	.4145E-01	.1152E+01	.1001E+01	.1001E+01	.3359E+01	.7141E-01	-.1017E+01	.2648E-01
51	.1169E+01	.1120E+01	.9909E+00	.3164E-01	.1116E+01	.9976E+00	.1001E+01	.3396E+01	.1062E+00	-.1014E+01	.1975E-01
52	.1118E+01	.1087E+01	.9941E+00	.2258E-01	.1085E+01	.9946E+00	.1000E+01	.3432E+01	.1451E+00	-.9919E+00	.1373E-01
53	.1075E+01	.1059E+01	.9970E+00	.1488E-01	.1058E+01	.9921E+00	.1000E+01	.3464E+01	.1992E+00	-.9471E+00	.8764E-02
54	.1043E+01	.1037E+01	.9992E+00	.8848E-02	.1037E+01	.9908E+00	.1000E+01	.3488E+01	.2738E+00	-.8824E+00	.4968E-02
55	.1019E+01	.1021E+01	.1001E+01	.4453E-02	.1022E+01	.9904E+00	.1001E+01	.3505E+01	.3523E+00	-.8361E+00	.2271E-02
56	.1005E+01	.1010E+01	.1002E+01	.1559E-02	.1011E+01	.9909E+00	.1001E+01	.3515E+01	.4238E+00	-.7968E+00	.5405E-03
57	.9967E+00	.1003E+01	.1002E+01	-.5503E-04	.1005E+01	.9918E+00	.1001E+01	.3520E+01	.5090E+00	-.7117E+00	-.3900E-03
58	.9937E+00	.1001E+01	.1002E+01	-.7125E-03	.1003E+01	.9930E+00	.1001E+01	.3520E+01	.6180E+00	-.5656E+00	-.7324E-03
59	.9938E+00	.9998E+00	.1002E+01	-.8005E-03	.1002E+01	.9940E+00	.1001E+01	.3518E+01	.7386E+00	-.4047E+00	-.7232E-03
60	.9952E+00	.1000E+01	.1002E+01	-.6489E-03	.1002E+01	.9949E+00	.1001E+01	.3516E+01	.7934E+00	-.3658E+00	-.5618E-03
61	.9970E+00	.1001E+01	.1002E+01	-.4171E-03	.1003E+01	.9957E+00	.1001E+01	.3513E+01	.8225E+00	-.3711E+00	-.3508E-03
62	.9989E+00	.1002E+01	.1001E+01	-.1648E-03	.1003E+01	.9964E+00	.1001E+01	.3510E+01	.8569E+00	-.3512E+00	-.1340E-03
63	.1000E+01	.1002E+01	.1001E+01	.5950E-04	.1004E+01	.9970E+00	.1001E+01	.3507E+01	.8828E+00	-.3527E+00	.5600E-04
64	.1002E+01	.1003E+01	.1001E+01	.2082E-03	.1004E+01	.9975E+00	.1001E+01	.3505E+01	.9083E+00	-.3375E+00	.1911E-03
65	.1002E+01	.1003E+01	.1001E+01	.2259E-03	.1004E+01	.9980E+00	.1001E+01	.3504E+01	.9318E+00	-.3133E+00	.2413E-03
66	.1002E+01	.1002E+01	.1001E+01	.7732E-04	.1003E+01	.9983E+00	.1001E+01	.3503E+01	.9518E+00	-.3601E+00	.1887E-03
67	.1000E+01	.1001E+01	.1001E+01	-.2178E-03	.1002E+01	.9987E+00	.1000E+01	.3503E+01	.9673E+00	-.3652E+00	.4521E-04
68	.9986E+00	.9998E+00	.1000E+01	-.6123E-03	.1000E+01	.9989E+00	.1000E+01	.3503E+01	.9750E+00	-.2596E+00	-.1635E-03
69	.9965E+00	.9981E+00	.1000E+01	-.1046E-02	.9981E+00	.9992E+00	.9999E+00	.3504E+01	.9880E+00	-.1068E+00	-.4054E-03
70	.9945E+00	.9965E+00	.1000E+01	-.1448E-02	.9962E+00	.9994E+00	.9995E+00	.3504E+01	.1006E+01	.4791E-01	-.6410E-03
71	.9929E+00	.9953E+00	.9999E+00	-.1751E-02	.9946E+00	.9995E+00	.9991E+00	.3504E+01	.1007E+01	.9697E-01	-.8280E-03
72	.9920E+00	.9946E+00	.9998E+00	-.1907E-02	.9937E+00	.9996E+00	.9989E+00	.3504E+01	.1007E+01	.1231E+00	-.9298E-03
73	.9920E+00	.9946E+00	.9998E+00	-.1907E-02	.9937E+00	.9996E+00	.9989E+00	.3504E+01	.1019E+01	.1964E+00	-.9299E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.4522E+00	.9000E+02	.7106E+01	0.	-.2500E+00	0.	0.	-.7191E-11	-.1809E+01	.9890E+00
2	.4522E+00	.8600E+02	.7106E+01	-.4582E-05	-.2500E+00	-.1413E-08	-.1656E-04	-.2384E-11	-.1809E+01	.9890E+00
3	.4522E+00	.8200E+02	.7106E+01	-.3664E-05	-.2500E+00	-.6228E-08	-.1326E-04	-.1285E-13	-.1809E+01	.9882E+00
4	.4522E+00	.7800E+02	.7106E+01	-.3963E-05	-.2500E+00	-.2488E-07	-.1395E-04	-.3213E-13	-.1809E+01	.9864E+00
5	.4522E+00	.7400E+02	.7106E+01	-.4141E-05	-.2500E+00	-.9825E-07	-.1485E-04	.2281E-01	-.1809E+01	.9834E+00
6	.4674E+00	.7000E+02	.7005E+01	-.4275E-05	-.2500E+00	-.4018E-06	-.1513E-04	.5044E-01	-.1870E+01	.9791E+00
7	.4861E+00	.6600E+02	.6890E+01	-.4290E-05	-.2500E+00	-.1716E-05	-.1487E-04	.5579E-01	-.1944E+01	.9737E+00
8	.5064E+00	.6200E+02	.6775E+01	-.4141E-05	-.2500E+00	-.7689E-05	-.1394E-04	.5793E-01	-.2025E+01	.9675E+00
9	.5285E+00	.5800E+02	.6661E+01	-.3790E-05	-.2500E+00	-.3631E-04	-.1226E-04	.6026E-01	-.2114E+01	.9611E+00
10	.5529E+00	.5400E+02	.6547E+01	-.3230E-05	-.2502E+00	-.1814E-03	-.9848E-05	.6045E-01	-.2210E+01	.9556E+00
11	.5801E+00	.5001E+02	.6442E+01	-.2488E-05	-.2509E+00	-.9596E-03	-.6878E-05	.6387E-01	-.2312E+01	.9523E+00
12	.6201E+00	.4603E+02	.6327E+01	-.1600E-05	-.2552E+00	-.5384E-02	-.3559E-05	.6788E-01	-.2429E+01	.9529E+00
13	.7350E+00	.4217E+02	.6224E+01	-.6343E-06	-.2872E+00	-.3140E-01	-.3413E-06	.7065E-01	-.2551E+01	.9587E+00
14	.8973E+00	.3909E+02	.6135E+01	.9039E-07	-.3367E+00	-.2220E-01	.1869E-05	.7023E-01	-.2660E+01	.9701E+00
15	.1107E+01	.3624E+02	.6067E+01	.5335E-06	-.3984E+00	-.6368E-01	.3044E-05	.4388E-01	-.2772E+01	.9863E+00
16	.1334E+01	.3408E+02	.6056E+01	.7557E-06	-.4773E+00	-.3055E-01	.3491E-05	-.8599E-03	-.2796E+01	.1006E+01
17	.1427E+01	.3205E+02	.6068E+01	.9107E-06	-.5024E+00	-.2142E-01	.3822E-05	-.2587E-01	-.2842E+01	.1026E+01
18	.1540E+01	.3010E+02	.6092E+01	.9448E-06	-.5277E+00	-.4002E-01	.3739E-05	-.5397E-01	-.2923E+01	.1046E+01
19	.1760E+01	.2826E+02	.6138E+01	.8476E-06	-.5815E+00	-.1110E+00	.3211E-05	-.1665E+00	-.3059E+01	.1065E+01
20	.2377E+01	.2662E+02	.6281E+01	.6079E-06	-.7576E+00	-.3522E+00	.2214E-05	-.1543E+00	-.3210E+01	.1082E+01
21	.3476E+01	.2556E+02	.6268E+01	.3926E-06	-.1070E+01	-.4912E+00	.1370E-05	-.1692E+00	-.3327E+01	.1095E+01
22	.4801E+01	.2471E+02	.6378E+01	.2681E-06	-.1464E+01	-.7854E+00	.8878E-06	.1287E+00	-.3211E+01	.1105E+01
23	.6265E+01	.2422E+02	.6215E+01	.1920E-06	-.2003E+01	-.7004E+00	.5912E-06	.8149E+00	-.2843E+01	.1111E+01
24	.7067E+01	.2380E+02	.6118E+01	.1593E-06	-.2421E+01	-.4697E+00	.4448E-06	.4081E+00	-.2840E+01	.1114E+01
25	.7949E+01	.2342E+02	.6099E+01	.1393E-06	-.2720E+01	-.2224E+00	.3505E-06	.2510E-01	-.2921E+01	.1114E+01

26	.8882E+01	.2306E+02	.6112E+01	.1351E-06	-.2947E+01	.1688E-01	.3202E-06	-.1063E+00	-.3013E+01	.1113E+01
27	.9620E+01	.2274E+02	.6123E+01	.1431E-06	-.3118E+01	.2485E+00	.3346E-06	-.9759E-01	-.3078E+01	.1113E+01
28	.1018E+02	.2242E+02	.6132E+01	.1546E-06	-.3241E+01	.4638E+00	.3617E-06	-.5368E-01	-.3133E+01	.1113E+01
29	.1065E+02	.2212E+02	.6134E+01	.1640E-06	-.3334E+01	.6661E+00	.3825E-06	-.1860E-02	-.3193E+01	.1113E+01
30	.1105E+02	.2182E+02	.6133E+01	.1705E-06	-.3405E+01	.8553E+00	.3945E-06	.5278E-02	-.3245E+01	.1114E+01
31	.1133E+02	.2153E+02	.6133E+01	.1755E-06	-.3454E+01	.1033E+01	.4023E-06	.1317E+00	-.3320E+01	.1114E+01
32	.1145E+02	.2124E+02	.6109E+01	.1806E-06	-.3491E+01	.1217E+01	.4100E-06	.2717E+00	-.3375E+01	.1115E+01
33	.1138E+02	.2094E+02	.6085E+01	.1862E-06	-.3492E+01	.1391E+01	.4181E-06	.5455E+00	-.3475E+01	.1115E+01
34	.1058E+02	.2063E+02	.6014E+01	.2016E-06	-.3475E+01	.1594E+01	.4457E-06	.8010E+00	-.3412E+01	.1116E+01
35	.9726E+01	.2030E+02	.5934E+01	.2173E-06	-.3415E+01	.1798E+01	.4716E-06	.7487E+00	-.3242E+01	.1117E+01
36	.8918E+01	.1996E+02	.5860E+01	.2333E-06	-.3315E+01	.1997E+01	.4982E-06	.6334E+00	-.3072E+01	.1119E+01
37	.8028E+01	.1961E+02	.5792E+01	.2550E-06	-.3119E+01	.2151E+01	.5376E-06	.9237E+00	-.3211E+01	.1120E+01
38	.6551E+01	.1916E+02	.5629E+01	.3061E-06	-.2918E+01	.2355E+01	.6386E-06	.9630E+00	-.3022E+01	.1121E+01
39	.5425E+01	.1869E+02	.5498E+01	.3606E-06	-.2678E+01	.2485E+01	.7471E-06	.5046E+00	-.2494E+01	.1122E+01
40	.4777E+01	.1824E+02	.5443E+01	.4024E-06	-.2464E+01	.2559E+01	.8345E-06	.2074E+00	-.2155E+01	.1123E+01
41	.4329E+01	.1779E+02	.5411E+01	.4431E-06	-.2317E+01	.2657E+01	.9320E-06	.9711E-01	-.1979E+01	.1124E+01
42	.4002E+01	.1733E+02	.5399E+01	.4839E-06	-.2209E+01	.2774E+01	.1043E-05	.1758E+00	-.2033E+01	.1124E+01
43	.4063E+01	.1677E+02	.5323E+01	.4825E-06	-.2131E+01	.3039E+01	.1069E-05	.2700E+00	-.2291E+01	.1124E+01
44	.4098E+01	.1620E+02	.5266E+01	.4818E-06	-.1935E+01	.3334E+01	.1096E-05	.1532E+00	-.2382E+01	.1122E+01
45	.4039E+01	.1561E+02	.5248E+01	.4889E-06	-.1550E+01	.3594E+01	.1141E-05	-.1228E+00	-.2321E+01	.1118E+01
46	.3779E+01	.1505E+02	.5327E+01	.5198E-06	-.1013E+01	.3540E+01	.1247E-05	-.4462E+00	-.2170E+01	.1112E+01
47	.3529E+01	.1446E+02	.5484E+01	.5502E-06	-.5482E+00	.3418E+01	.1369E-05	-.7091E+00	-.2015E+01	.1104E+01
48	.3249E+01	.1391E+02	.5728E+01	.5948E-06	-.2553E+00	.3208E+01	.1534E-05	-.9032E+00	-.1379E+01	.1092E+01
49	.2997E+01	.1361E+02	.6040E+01	.6395E-06	-.7569E-01	.2995E+01	.1709E-05	-.9816E+00	-.7459E+00	.1077E+01
50	.2802E+01	.1341E+02	.6384E+01	.6714E-06	.6671E-01	.2853E+01	.1858E-05	-.9927E+00	-.4421E+00	.1061E+01
51	.2614E+01	.1329E+02	.6749E+01	.6977E-06	.1956E+00	.2723E+01	.1991E-05	-.9731E+00	-.1870E+00	.1044E+01
52	.2434E+01	.1327E+02	.7128E+01	.7172E-06	.3238E+00	.2608E+01	.2105E-05	-.9255E+00	.6270E-01	.1028E+01
53	.2259E+01	.1335E+02	.7509E+01	.7319E-06	.4647E+00	.2499E+01	.2201E-05	-.8489E+00	.2972E+00	.1015E+01
54	.2114E+01	.1353E+02	.7880E+01	.7348E-06	.6230E+00	.2384E+01	.2257E-05	-.7618E+00	.4777E+00	.1005E+01
55	.1942E+01	.1380E+02	.8230E+01	.7482E-06	.7836E+00	.2231E+01	.2339E-05	-.6884E+00	.5184E+00	.9986E+00
56	.1786E+01	.1406E+02	.8589E+01	.7646E-06	.9188E+00	.2076E+01	.2427E-05	-.6265E+00	.5280E+00	.9948E+00
57	.1631E+01	.1439E+02	.8932E+01	.7996E-06	.1038E+01	.1899E+01	.2568E-05	-.5354E+00	.5925E+00	.9932E+00
58	.1515E+01	.1479E+02	.9245E+01	.8471E-06	.1153E+01	.1722E+01	.2736E-05	-.4120E+00	.6986E+00	.9932E+00
59	.1439E+01	.1531E+02	.9476E+01	.8929E-06	.1260E+01	.1507E+01	.2902E-05	-.2954E+00	.7892E+00	.9940E+00
60	.1349E+01	.1589E+02	.9655E+01	.9674E-06	.1323E+01	.1271E+01	.3157E-05	-.2680E+00	.7623E+00	.9950E+00
61	.1255E+01	.1644E+02	.9873E+01	.1066E-05	.1337E+01	.1070E+01	.3487E-05	-.2712E+00	.7216E+00	.9961E+00
62	.1141E+01	.1704E+02	.1009E+02	.1214E-05	.1312E+01	.8796E+00	.3984E-05	-.2532E+00	.6997E+00	.9971E+00
63	.1018E+01	.1767E+02	.1032E+02	.1415E-05	.1261E+01	.7123E+00	.4672E-05	-.2477E+00	.6675E+00	.9980E+00
64	.8949E+00	.1835E+02	.1057E+02	.1666E-05	.1194E+01	.5693E+00	.5553E-05	-.2283E+00	.6408E+00	.9987E+00
65	.7722E+00	.1910E+02	.1083E+02	.1958E-05	.1115E+01	.4429E+00	.6613E-05	-.2016E+00	.6124E+00	.9991E+00
66	.6542E+00	.1993E+02	.1110E+02	.2265E-05	.1025E+01	.3370E+00	.7778E-05	-.2182E+00	.5665E+00	.9993E+00
67	.5554E+00	.2083E+02	.1149E+02	.2495E-05	.9346E+00	.2640E+00	.8741E-05	-.2086E+00	.5353E+00	.9992E+00
68	.4683E+00	.2186E+02	.1185E+02	.2610E-05	.8559E+00	.1983E+00	.9359E-05	-.1380E+00	.5151E+00	.9988E+00
69	.4144E+00	.2303E+02	.1208E+02	.2413E-05	.7900E+00	.1336E+00	.8889E-05	-.5466E-01	.5153E+00	.9984E+00
70	.3835E+00	.2435E+02	.1211E+02	.1952E-05	.7293E+00	.6904E-01	.7418E-05	.2584E-01	.5282E+00	.9980E+00
71	.3688E+00	.2579E+02	.1195E+02	.1423E-05	.6683E+00	.1670E-01	.5612E-05	.5447E-01	.5532E+00	.9976E+00
72	.3922E+00	.2735E+02	.1182E+02	.2013E-05	.6226E+00	-.9069E-03	.8384E-05	.7876E-01	.6298E+00	.9974E+00
73	.4299E+00	.2900E+02	.1155E+02	0.	.5894E+00	.4888E-13	0.	.1447E+00	.7294E+00	.9974E+00

SECOND INDEX= 16

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9324E+00	.9470E+00	.9979E+00	-.1408E-01	.9407E+00	.1006E+01	.9927E+00	.3520E+01	-.9979E+00	.1408E-01	-.7882E-02
2	.9324E+00	.9470E+00	.9979E+00	-.1408E-01	.9407E+00	.1006E+01	.9927E+00	.3520E+01	-.9979E+00	.1407E-01	-.7882E-02
3	.9299E+00	.9453E+00	.9977E+00	-.1460E-01	.9386E+00	.1006E+01	.9922E+00	.3521E+01	-.9977E+00	.1460E-01	-.8173E-02
4	.9241E+00	.9412E+00	.9974E+00	-.1585E-01	.9337E+00	.1006E+01	.9912E+00	.3523E+01	-.9974E+00	.1585E-01	-.8847E-02
5	.9147E+00	.9345E+00	.9970E+00	-.1793E-01	.9260E+00	.1006E+01	.9899E+00	.3528E+01	-.9971E+00	.2786E-01	-.9945E-02
6	.9017E+00	.9252E+00	.9968E+00	-.2086E-01	.9156E+00	.1005E+01	.9884E+00	.3535E+01	-.9970E+00	.4210E-01	-.1146E-01
7	.8856E+00	.9136E+00	.9969E+00	-.2460E-01	.9033E+00	.1005E+01	.9872E+00	.3545E+01	-.9972E+00	.4717E-01	- 1334E-01
8	.8674E+00	.9005E+00	.9975E+00	-.2895E-01	.8902E+00	.1004E+01	.9864E+00	.3559E+01	-.9978E+00	.5144E-01	-.1547E-01
9	.8487E+00	.8872E+00	.9989E+00	-.3352E-01	.8777E+00	.1004E+01	.9867E+00	.3576E+01	-.9991E+00	.5595E-01	-.1764E-01
10	.8321E+00	.8752E+00	.1001E+01	-.3772E-01	.8680E+00	.1003E+01	.9883E+00	.3596E+01	-.1001E+01	.5914E-01	-.1958E-01
11	.8206E+00	.8669E+00	.1004E+01	-.4070E-01	.8632E+00	.1002E+01	.9917E+00	.3616E+01	-.1004E+01	.6242E-01	-.2093E-01
12	.8178E+00	.8649E+00	.1008E+01	-.4143E-01	.8662E+00	.1002E+01	.9969E+00	.3631E+01	-.1007E+01	.6352E-01	-.2125E-01
13	.8275E+00	.8718E+00	.1012E+01	-.3892E-01	.8793E+00	.1003E+01	.1004E+01	.3639E+01	-.1007E+01	.6095E-01	-.2012E-01
14	.8528E+00	.8900E+00	.1016E+01	-.3247E-01	.9044E+00	.1004E+01	.1011E+01	.3634E+01	-.1013E+01	.5332E-01	-.1717E-01

15	.8955E+00	.9210E+00	.1019E+01	-.2204E-01	.9424E+00	.1005E+01	.1019E+01	.3616E+01	-.1015E+01	.3418E-01	-.1218E-01
16	.9557E+00	.9649E+00	.1020E+01	-.8233E-02	.9927E+00	.1005E+01	.1026E+01	.3587E+01	-.1020E+01	.5412E-02	-.5168E-02
17	.1031E+01	.1020E+01	.1019E+01	.7621E-02	.1053E+01	.1002E+01	.1031E+01	.3548E+01	-.1020E+01	-.2157E-01	.3649E-02
18	.1119E+01	.1085E+01	.1017E+01	.2483E-01	.1122E+01	.9980E+00	.1033E+01	.3506E+01	-.1020E+01	-.5040E-01	.1386E-01
19	.1213E+01	.1154E+01	.1013E+01	.4148E-01	.1192E+01	.9922E+00	.1035E+01	.3462E+01	-.1030E+01	-.1061E+00	.2480E-01
20	.1305E+01	.1221E+01	.1009E+01	.5650E-01	.1259E+01	.9864E+00	.1034E+01	.3420E+01	-.1048E+01	-.1221E+00	.3554E-01
21	.1385E+01	.1278E+01	.1004E+01	.6866E-01	.1315E+01	.9821E+00	.1033E+01	.3383E+01	-.1048E+01	-.1361E+00	.4490E-01
22	.1444E+01	.1319E+01	.9994E+00	.7710E-01	.1352E+01	.9803E+00	.1031E+01	.3353E+01	-.1011E+01	-.3014E-01	.5176E-01
23	.1477E+01	.1340E+01	.9960E+00	.8173E-01	.1370E+01	.9809E+00	.1029E+01	.3331E+01	-.9937E+00	.2001E+00	.5568E-01
24	.1489E+01	.1346E+01	.9940E+00	.8330E-01	.1373E+01	.9827E+00	.1027E+01	.3319E+01	-.9999E+00	.6714E-01	.5707E-01
25	.1489E+01	.1343E+01	.9930E+00	.8322E-01	.1369E+01	.9851E+00	.1026E+01	.3313E+01	-.9920E+00	-.9498E-01	.5700E-01
26	.1484E+01	.1337E+01	.9925E+00	.8259E-01	.1362E+01	.9879E+00	.1026E+01	.3309E+01	-.9824E+00	-.1453E+00	.5640E-01
27	.1478E+01	.1331E+01	.9921E+00	.8191E-01	.1355E+01	.9908E+00	.1026E+01	.3306E+01	-.9737E+00	-.1355E+00	.5575E-01
28	.1473E+01	.1325E+01	.9916E+00	.8129E-01	.1348E+01	.9932E+00	.1025E+01	.3303E+01	-.9684E+00	-.1189E+00	.5521E-01
29	.1470E+01	.1321E+01	.9911E+00	.8072E-01	.1343E+01	.9952E+00	.1025E+01	.3300E+01	-.9656E+00	-.1029E+00	.5476E-01
30	.1467E+01	.1318E+01	.9905E+00	.8022E-01	.1339E+01	.9967E+00	.1024E+01	.3297E+01	-.9618E+00	-.9839E-01	.5440E-01
31	.1464E+01	.1315E+01	.9899E+00	.7985E-01	.1335E+01	.9980E+00	.1023E+01	.3294E+01	-.9729E+00	-.5276E-01	.5414E-01
32	.1463E+01	.1313E+01	.9893E+00	.7970E-01	.1332E+01	.9989E+00	.1022E+01	.3291E+01	-.9920E+00	-.1121E-02	.5402E-01
33	.1464E+01	.1313E+01	.9885E+00	.7985E-01	.1330E+01	.9997E+00	.1022E+01	.3288E+01	-.1057E+01	.1233E+00	.5407E-01
34	.1466E+01	.1314E+01	.9878E+00	.8030E-01	.1330E+01	.1000E+01	.1021E+01	.3284E+01	-.1149E+01	.2589E+00	.5431E-01
35	.1469E+01	.1316E+01	.9869E+00	.8102E-01	.1331E+01	.1000E+01	.1020E+01	.3280E+01	-.1156E+01	.2553E+00	.5472E-01
36	.1474E+01	.1319E+01	.9859E+00	.8188E-01	.1332E+01	.1000E+01	.1019E+01	.3276E+01	-.1135E+01	.2138E+00	.5525E-01
37	.1479E+01	.1322E+01	.9847E+00	.8278E-01	.1334E+01	.1000E+01	.1018E+01	.3270E+01	-.1295E+01	.4047E+00	.5588E-01
38	.1485E+01	.1326E+01	.9835E+00	.8372E-01	.1336E+01	.1001E+01	.1017E+01	.3264E+01	-.1431E+01	.5430E+00	.5660E-01
39	.1492E+01	.1330E+01	.9822E+00	.8466E-01	.1338E+01	.1001E+01	.1015E+01	.3257E+01	-.1222E+01	.2864E+00	.5741E-01
40	.1499E+01	.1334E+01	.9807E+00	.8543E-01	.1339E+01	.1002E+01	.1014E+01	.3250E+01	-.1036E+01	.6222E-01	.5821E-01
41	.1505E+01	.1336E+01	.9791E+00	.8586E-01	.1339E+01	.1003E+01	.1013E+01	.3241E+01	-.9534E+00	-.3453E-01	.5885E-01
42	.1507E+01	.1336E+01	.9777E+00	.8576E-01	.1336E+01	.1005E+01	.1011E+01	.3234E+01	-.8995E+00	-.9265E-01	.5915E-01
43	.1505E+01	.1332E+01	.9765E+00	.8491E-01	.1331E+01	.1007E+01	.1010E+01	.3228E+01	-.7975E+00	-.1995E+00	.5885E-01
44	.1494E+01	.1324E+01	.9758E+00	.8298E-01	.1321E+01	.1008E+01	.1008E+01	.3227E+01	-.5933E+00	-.4110E+00	.5764E-01
45	.1473E+01	.1310E+01	.9758E+00	.7955E-01	.1305E+01	.1009E+01	.1007E+01	.3231E+01	-.3626E+00	-.6439E+00	.5517E-01
46	.1439E+01	.1288E+01	.9766E+00	.7420E-01	.1281E+01	.1010E+01	.1005E+01	.3243E+01	-.2045E+00	-.7981E+00	.5114E-01
47	.1390E+01	.1257E+01	.9783E+00	.6672E-01	.1250E+01	.1009E+01	.1003E+01	.3264E+01	-.1173E+00	-.8798E+00	.4545E-01
48	.1329E+01	.1219E+01	.9809E+00	.5719E-01	.1211E+01	.1007E+01	.1002E+01	.3294E+01	-.6684E-01	-.9325E+00	.3833E-01
49	.1260E+01	.1176E+01	.9844E+00	.4613E-01	.1169E+01	.1004E+01	.1000E+01	.3332E+01	-.3730E-01	-.9656E+00	.3029E-01
50	.1189E+01	.1132E+01	.9883E+00	.3439E-01	.1125E+01	.1000E+01	.9991E+00	.3377E+01	-.2053E-01	-.9811E+00	.2206E-01
51	.1123E+01	.1090E+01	.9925E+00	.2300E-01	.1085E+01	.9958E+00	.9986E+00	.3423E+01	-.3569E-02	-.9919E+00	.1438E-01
52	.1067E+01	.1054E+01	.9963E+00	.1297E-01	.1051E+01	.9920E+00	.9986E+00	.3465E+01	.1823E-01	-.9971E+00	.7856E-02
53	.1024E+01	.1025E+01	.9995E+00	.4988E-02	.1024E+01	.9895E+00	.9991E+00	.3500E+01	.5082E-01	-.9907E+00	.2828E-02
54	.9943E+00	.1004E+01	.1002E+01	-.7086E-03	.1005E+01	.9886E+00	.9997E+00	.3524E+01	.1008E+00	-.9684E+00	-.6666E-03
55	.9759E+00	.9905E+00	.1003E+01	-.4278E-02	.9921E+00	.9891E+00	.1000E+01	.3537E+01	.1609E+00	-.9441E+00	-.2806E-02
56	.9668E+00	.9829E+00	.1004E+01	-.6105E-02	.9850E+00	.9905E+00	.1001E+01	.3542E+01	.2211E+00	-.9170E+00	-.3867E-02
57	.9644E+00	.9798E+00	.1004E+01	-.6670E-02	.9822E+00	.9922E+00	.1001E+01	.3541E+01	.2960E+00	-.8579E+00	-.4156E-02
58	.9660E+00	.9799E+00	.1003E+01	-.6452E-02	.9821E+00	.9939E+00	.1001E+01	.3537E+01	.4053E+00	-.7361E+00	-.3966E-02
59	.9696E+00	.9816E+00	.1003E+01	-.5859E-02	.9835E+00	.9952E+00	.1001E+01	.3532E+01	.5460E+00	-.5823E+00	-.3544E-02
60	.9738E+00	.9839E+00	.1002E+01	-.5168E-02	.9854E+00	.9962E+00	.1001E+01	.3527E+01	.6328E+00	-.5147E+00	-.3059E-02
61	.9778E+00	.9862E+00	.1002E+01	-.4503E-02	.9874E+00	.9969E+00	.1000E+01	.3522E+01	.6857E+00	-.4928E+00	-.2594E-02
62	.9814E+00	.9884E+00	.1002E+01	-.3895E-02	.9892E+00	.9975E+00	.1000E+01	.3518E+01	.7356E+00	-.4671E+00	-.2175E-02
63	.9845E+00	.9904E+00	.1001E+01	-.3344E-02	.9908E+00	.9979E+00	.9999E+00	.3514E+01	.7730E+00	-.4640E+00	-.1805E-02
64	.9873E+00	.9921E+00	.1001E+01	-.2843E-02	.9922E+00	.9983E+00	.9997E+00	.3511E+01	.8082E+00	-.4536E+00	-.1482E-02
65	.9896E+00	.9935E+00	.1001E+01	-.2399E-02	.9934E+00	.9987E+00	.9996E+00	.3509E+01	.8416E+00	-.4371E+00	-.1208E-02
66	.9915E+00	.9946E+00	.1000E+01	-.2033E-02	.9944E+00	.9990E+00	.9995E+00	.3507E+01	.8678E+00	-.4684E+00	-.9909E-03
67	.9928E+00	.9954E+00	.1000E+01	-.1767E-02	.9950E+00	.9993E+00	.9994E+00	.3505E+01	.8922E+00	-.4715E+00	-.8395E-03
68	.9935E+00	.9957E+00	.1000E+01	-.1611E-02	.9952E+00	.9995E+00	.9994E+00	.3504E+01	.9173E+00	-.3477E+00	-.7578E-03
69	.9936E+00	.9957E+00	.9999E+00	-.1564E-02	.9951E+00	.9996E+00	.9992E+00	.3503E+01	.9633E+00	-.1369E+00	-.7429E-03
70	.9933E+00	.9954E+00	.9998E+00	-.1600E-02	.9947E+00	.9997E+00	.9991E+00	.3503E+01	.1021E+01	.7618E-01	-.7789E-03
71	.9928E+00	.9950E+00	.9997E+00	-.1675E-02	.9941E+00	.9998E+00	.9990E+00	.3503E+01	.1049E+01	.2092E+00	-.8368E-03
72	.9924E+00	.9947E+00	.9997E+00	-.1736E-02	.9937E+00	.9998E+00	.9989E+00	.3503E+01	.1053E+01	.2818E+00	-.8816E-03
73	.9924E+00	.9947E+00	.9997E+00	-.1736E-02	.9937E+00	.9998E+00	.9989E+00	.3503E+01	.1059E+01	.3493E+00	-.8816E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.3520E+00	.9000E+02	.6474E+01	0.	-.2500E+00	.8003E-13	0.	-.5157E-11	-.1408E+01	.9846E+00
2	.3520E+00	.8600E+02	.6474E+01	-.5038E-05	-.2500E+00	-.1203E-08	-.1806E-04	-.1711E-11	-.1408E+01	.9846E+00
3	.3520E+00	.8200E+02	.6474E+01	-.4006E-05	-.2500E+00	-.5161E-08	-.1439E-04	.5002E-14	-.1408E+01	.9838E+00
4	.3520E+00	.7800E+02	.6474E+01	-.4182E-05	-.2500E+00	-.2052E-07	-.1499E-04	-.2501E-13	-.1408E+01	.9819E+00

5	.3520E+00	.7400E+02	.6474E+01	-.4433E-05	-.2500E+00	-.8149E-07	-.1576E-04	.1403E-01	-.1408E+01	.9788E+00
6	.3646E+00	.7000E+02	.6394E+01	-.4516E-05	-.2500E+00	-.3336E-06	-.1579E-04	.3107E-01	-.1458E+01	.9746E+00
7	.3801E+00	.6600E+02	.6304E+01	-.4474E-05	-.2500E+00	-.1423E-05	-.1523E-04	.3443E-01	-.1521E+01	.9693E+00
8	.3970E+00	.6200E+02	.6213E+01	-.4268E-05	-.2500E+00	-.6371E-05	-.1398E-04	.3582E-01	-.1588E+01	.9632E+00
9	.4156E+00	.5800E+02	.6123E+01	-.3864E-05	-.2500E+00	-.3005E-04	-.1197E-04	.3732E-01	-.1662E+01	.9567E+00
10	.4361E+00	.5400E+02	.6034E+01	-.3258E-05	-.2502E+00	-.1497E-03	-.9278E-05	.3729E-01	-.1743E+01	.9507E+00
11	.4593E+00	.5001E+02	.5952E+01	-.2482E-05	-.2511E+00	-.7891E-03	-.6104E-05	.3958E-01	-.1829E+01	.9465E+00
12	.4946E+00	.4604E+02	.5861E+01	-.1569E-05	-.2566E+00	-.4355E-02	-.2696E-05	.4226E-01	-.1927E+01	.9455E+00
13	.5855E+00	.4222E+02	.5781E+01	-.6114E-06	-.2883E+00	-.2352E-01	.3977E-06	.4395E-01	-.2027E+01	.9492E+00
14	.7176E+00	.3911E+02	.5711E+01	.1028E-06	-.3378E+00	-.1770E-01	.2415E-05	.4352E-01	-.2122E+01	.9582E+00
15	.8806E+00	.3630E+02	.5660E+01	.5355E-06	-.3987E+00	-.4698E-01	.3412E-05	.2588E-01	-.2206E+01	.9724E+00
16	.1057E+01	.3410E+02	.5652E+01	.7497E-06	-.4726E+00	-.2415E-01	.3710E-05	-.6202E-02	-.2236E+01	.9904E+00
17	.1144E+01	.3207E+02	.5672E+01	.8792E-06	-.5028E+00	-.1716E-01	.3854E-05	-.3067E-01	-.2277E+01	.1011E+01
18	.1250E+01	.3012E+02	.5706E+01	.8814E-06	-.5345E+00	-.3142E-01	.3576E-05	-.5854E-01	-.2343E+01	.1031E+01
19	.1452E+01	.2832E+02	.5765E+01	.7526E-06	-.6016E+00	-.8554E-01	.2875E-05	-.1506E+00	-.2435E+01	.1051E+01
20	.1864E+01	.2677E+02	.5913E+01	.5389E-06	-.7775E+00	-.2511E+00	.1944E-05	-.1393E+00	-.2442E+01	.1068E+01
21	.2681E+01	.2570E+02	.5915E+01	.3282E-06	-.1073E+01	-.3528E+00	.1106E-05	-.1476E+00	-.2547E+01	.1083E+01
22	.3526E+01	.2487E+02	.6023E+01	.2143E-06	-.1431E+01	-.5134E+00	.6603E-06	.1169E+00	-.2422E+01	.1095E+01
23	.4519E+01	.2433E+02	.5848E+01	.1406E-06	-.1862E+01	-.3978E+00	.3645E-06	.6645E+00	-.2285E+01	.1103E+01
24	.5105E+01	.2386E+02	.5729E+01	.1062E-06	-.2213E+01	-.1810E+00	.2055E-06	.3463E+00	-.2279E+01	.1107E+01
25	.5803E+01	.2343E+02	.5713E+01	.9007E-07	-.2480E+01	.2695E-01	.1236E-06	-.2772E-01	-.2339E+01	.1108E+01
26	.6587E+01	.2305E+02	.5739E+01	.9410E-07	-.2707E+01	.2255E+00	.1237E-06	-.1535E+00	-.2421E+01	.1110E+01
27	.7240E+01	.2270E+02	.5759E+01	.1112E-06	-.2890E+01	.4276E+00	.1707E-06	-.1332E+00	-.2485E+01	.1111E+01
28	.7750E+01	.2237E+02	.5776E+01	.1311E-06	-.3029E+01	.6219E+00	.2269E-06	-.9228E-01	-.2539E+01	.1112E+01
29	.8178E+01	.2204E+02	.5783E+01	.1475E-06	-.3137E+01	.8082E+00	.2716E-06	-.5077E-01	-.2594E+01	.1112E+01
30	.8539E+01	.2173E+02	.5788E+01	.1595E-06	-.3218E+01	.9839E+00	.3024E-06	-.3808E-01	-.2642E+01	.1113E+01
31	.8792E+01	.2143E+02	.5792E+01	.1687E-06	-.3272E+01	.1149E+01	.3246E-06	.8401E-01	-.2716E+01	.1113E+01
32	.8889E+01	.2111E+02	.5769E+01	.1772E-06	-.3307E+01	.1323E+01	.3435E-06	.2208E+00	-.2776E+01	.1114E+01
33	.8795E+01	.2080E+02	.5742E+01	.1858E-06	-.3294E+01	.1484E+01	.3599E-06	.5389E+00	-.2913E+01	.1115E+01
34	.8103E+01	.2045E+02	.5646E+01	.2039E-06	-.3254E+01	.1676E+01	.3900E-06	.8168E+00	-.2911E+01	.1115E+01
35	.7340E+01	.2008E+02	.5541E+01	.2224E-06	-.3158E+01	.1856E+01	.4161E-06	.7451E+00	-.2762E+01	.1116E+01
36	.6618E+01	.1970E+02	.5443E+01	.2414E-06	-.3020E+01	.2019E+01	.4415E-06	.6110E+00	-.2600E+01	.1117E+01
37	.5828E+01	.1930E+02	.5356E+01	.2677E-06	-.2785E+01	.2118E+01	.4807E-06	.9195E+00	-.2792E+01	.1119E+01
38	.4698E+01	.1874E+02	.5128E+01	.3228E-06	-.2583E+01	.2305E+01	.5699E-06	.9783E+00	-.2691E+01	.1120E+01
39	.3897E+01	.1815E+02	.4940E+01	.3767E-06	-.2361E+01	.2466E+01	.6563E-06	.5222E+00	-.2196E+01	.1122E+01
40	.3452E+01	.1761E+02	.4860E+01	.4149E-06	-.2151E+01	.2580E+01	.7233E-06	.2289E+00	-.1879E+01	.1124E+01
41	.3179E+01	.1706E+02	.4807E+01	.4470E-06	-.1993E+01	.2761E+01	.7974E-06	.1217E+00	-.1763E+01	.1126E+01
42	.2942E+01	.1650E+02	.4783E+01	.4864E-06	-.1801E+01	.2936E+01	.9044E-06	.7280E-01	-.1753E+01	.1128E+01
43	.2875E+01	.1587E+02	.4758E+01	.5054E-06	-.1536E+01	.3123E+01	.9875E-06	-.7270E-02	-.1858E+01	.1129E+01
44	.2695E+01	.1521E+02	.4788E+01	.5490E-06	-.1172E+01	.3168E+01	.1131E-05	-.1825E+00	-.1806E+01	.1128E+01
45	.2502E+01	.1453E+02	.4893E+01	.6020E-06	-.8236E+00	.3146E+01	.1308E-05	-.3776E+00	-.1596E+01	.1124E+01
46	.2324E+01	.1394E+02	.5090E+01	.6583E-06	-.5526E+00	.2985E+01	.1510E-05	-.5194E+00	-.1401E+01	.1117E+01
47	.2174E+01	.1333E+02	.5340E+01	.7127E-06	-.3770E+00	.2825E+01	.1723E-05	-.5906E+00	-.1280E+01	.1106E+01
48	.2029E+01	.1276E+02	.5641E+01	.7656E-06	-.2798E+00	.2669E+01	.1948E-05	-.6668E+00	-.8910E+00	.1090E+01
49	.1914E+01	.1245E+02	.5997E+01	.8012E-06	-.2022E+00	.2540E+01	.2135E-05	-.7105E+00	-.5118E+00	.1071E+01
50	.1798E+01	.1222E+02	.6384E+01	.8228E-06	-.1322E+00	.2444E+01	.2284E-05	-.7176E+00	-.3328E+00	.1051E+01
51	.1677E+01	.1208E+02	.6796E+01	.8295E-06	-.6261E-01	.2346E+01	.2385E-05	-.7101E+00	-.1796E+00	.1031E+01
52	.1555E+01	.1201E+02	.7230E+01	.8210E-06	.1185E-01	.2254E+01	.2435E-05	-.6901E+00	-.2805E-01	.1013E+01
53	.1433E+01	.1204E+02	.7683E+01	.8002E-06	.9833E-01	.2168E+01	.2440E-05	-.6553E+00	.1284E+00	.9993E+00
54	.1328E+01	.1219E+02	.8145E+01	.7632E-06	.2030E+00	.2079E+01	.2386E-05	-.6143E+00	.2501E+00	.9902E+00
55	.1211E+01	.1242E+02	.8608E+01	.7333E-06	.3144E+00	.1971E+01	.2345E-05	-.5698E+00	.2797E+00	.9853E+00
56	.1105E+01	.1265E+02	.9085E+01	.7082E-06	.4133E+00	.1862E+01	.2311E-05	-.5274E+00	.2975E+00	.9837E+00
57	.1008E+01	.1296E+02	.9563E+01	.7012E-06	.5118E+00	.1746E+01	.2329E-05	-.4708E+00	.3622E+00	.9842E+00
58	.9388E+00	.1337E+02	.1002E+02	.7037E-06	.6219E+00	.1639E+01	.2372E-05	-.3898E+00	.4824E+00	.9858E+00
59	.8957E+00	.1398E+02	.1039E+02	.7134E-06	.7479E+00	.1490E+01	.2427E-05	-.3084E+00	.5830E+00	.9878E+00
60	.8471E+00	.1467E+02	.1071E+02	.7453E-06	.8527E+00	.1319E+01	.2547E-05	-.2739E+00	.6697E+00	.9897E+00
61	.7962E+00	.1533E+02	.1104E+02	.7944E-06	.9199E+00	.1161E+01	.2717E-05	-.2620E+00	.7350E+00	.9914E+00
62	.7296E+00	.1601E+02	.1137E+02	.8799E-06	.9504E+00	.9982E+00	.3005E-05	-.2449E+00	.7104E+00	.9928E+00
63	.6547E+00	.1673E+02	.1171E+02	.1007E-05	.9504E+00	.8461E+00	.3436E-05	-.2369E+00	.4780E+00	.9941E+00
64	.5770E+00	.1747E+02	.1209E+02	.1178E-05	.9274E+00	.7103E+00	.4025E-05	-.2226E+00	.4517E+00	.9952E+00
65	.4985E+00	.1829E+02	.1248E+02	.1392E-05	.8885E+00	.5870E+00	.4783E-05	-.2035E+00	.4266E+00	.9961E+00
66	.4227E+00	.1919E+02	.1291E+02	.1637E-05	.8355E+00	.4778E+00	.5679E-05	-.2049E+00	.3887E+00	.9969E+00
67	.3585E+00	.2013E+02	.1345E+02	.1850E-05	.7756E+00	.3916E+00	.6512E-05	-.1939E+00	.3643E+00	.9974E+00
68	.3018E+00	.2122E+02	.1399E+02	.1996E-05	.7228E+00	.3158E+00	.7157E-05	-.1325E+00	.3597E+00	.9977E+00
69	.2682E+00	.2252E+02	.1433E+02	.1892E-05	.6936E+00	.2388E+00	.6947E-05	-.5010E-01	.3747E+00	.9979E+00

70	.2517E+00	.2401E+02	.1436E+02	.1539E-05	.6526E+00	.1592E+00	.5823E-05	.2918E-01	.3928E+00	.9979E+00
71	.2494E+00	.2564E+02	.1410E+02	.1086E-05	.6240E+00	.8602E-01	.4275E-05	.8357E-01	.4112E+00	.9978E+00
72	.2759E+00	.2731E+02	.1369E+02	.1400E-05	.6037E+00	.3190E-01	.5711E-05	.1294E+00	.4638E+00	.9977E+00
73	.3147E+00	.2900E+02	.1316E+02	0.	.5895E+00	0.	0.	.1875E+00	.5339E+00	.9977E+00

SECOND INDEX= 17

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9217E+00	.9427E+00	.9987E+00	-.1643E-01	.9362E+00	.1001E+01	.9919E+00	.3535E+01	-.9987E+00	.1642E-01	-.9127E-02
2	.9217E+00	.9427E+00	.9987E+00	-.1643E-01	.9362E+00	.1001E+01	.9919E+00	.3535E+01	-.9987E+00	.1642E-01	-.9127E-02
3	.9193E+00	.9411E+00	.9985E+00	-.1695E-01	.9342E+00	.1001E+01	.9913E+00	.3536E+01	-.9985E+00	.1695E-01	-.9411E-02
4	.9137E+00	.9373E+00	.9982E+00	-.1818E-01	.9295E+00	.1000E+01	.9903E+00	.3539E+01	-.9982E+00	.1818E-01	-.1006E-01
5	.9047E+00	.9310E+00	.9978E+00	-.2021E-01	.9221E+00	.9999E+00	.9889E+00	.3543E+01	-.9978E+00	.2666E-01	-.1112E-01
6	.8923E+00	.9222E+00	.9975E+00	-.2307E-01	.9123E+00	.9993E+00	.9874E+00	.3550E+01	-.9976E+00	.3685E-01	-.1256E-01
7	.8770E+00	.9113E+00	.9976E+00	-.2670E-01	.9006E+00	.9987E+00	.9861E+00	.3561E+01	-.9977E+00	.4134E-01	-.1435E-01
8	.8595E+00	.8988E+00	.9982E+00	-.3096E-01	.8880E+00	.9980E+00	.9854E+00	.3574E+01	-.9983E+00	.4554E-01	-.1638E-01
9	.8412E+00	.8856E+00	.9995E+00	-.3556E-01	.8757E+00	.9972E+00	.9857E+00	.3592E+01	-.9996E+00	.5009E-01	-.1852E-01
10	.8238E+00	.8730E+00	.1002E+01	-.4002E-01	.8653E+00	.9965E+00	.9873E+00	.3612E+01	-.1002E+01	.5367E-01	-.2054E-01
11	.8099E+00	.8627E+00	.1005E+01	-.4366E-01	.8587E+00	.9959E+00	.9907E+00	.3634E+01	-.1005E+01	.5757E-01	-.2217E-01
12	.8024E+00	.8570E+00	.1009E+01	-.4558E-01	.8581E+00	.9959E+00	.9959E+00	.3654E+01	-.1008E+01	.5989E-01	-.2305E-01
13	.8048E+00	.8584E+00	.1014E+01	-.4476E-01	.8657E+00	.9966E+00	.1003E+01	.3667E+01	-.1011E+01	.5889E-01	-.2276E-01
14	.8207E+00	.8696E+00	.1018E+01	-.4035E-01	.8839E+00	.9981E+00	.1010E+01	.3670E+01	-.1016E+01	.5368E-01	-.2090E-01
15	.8527E+00	.8925E+00	.1021E+01	-.3191E-01	.9139E+00	.9999E+00	.1018E+01	.3659E+01	-.1018E+01	.3858E-01	-.1718E-01
16	.9020E+00	.9284E+00	.1023E+01	-.1968E-01	.9563E+00	.1001E+01	.1025E+01	.3634E+01	-.1023E+01	.1299E-01	-.1143E-01
17	.9684E+00	.9773E+00	.1023E+01	-.4453E-02	.1011E+01	.1000E+01	.1031E+01	.3597E+01	-.1024E+01	-.1503E-01	-.3688E-02
18	.1050E+01	.1038E+01	.1021E+01	.1258E-01	.1075E+01	.9967E+00	.1034E+01	.3554E+01	-.1023E+01	-.4577E-01	.5803E-02
19	.1142E+01	.1106E+01	.1018E+01	.3005E-01	.1146E+01	.9912E+00	.1036E+01	.3508E+01	-.1028E+01	-.9654E-01	.1654E-01
20	.1237E+01	.1177E+01	.1014E+01	.4650E-01	.1218E+01	.9845E+00	.1036E+01	.3464E+01	-.1036E+01	-.1124E+00	.2767E-01
21	.1326E+01	.1243E+01	.1009E+01	.6055E-01	.1282E+01	.9784E+00	.1035E+01	.3424E+01	-.1034E+01	-.1282E+00	.3801E-01
22	.1397E+01	.1294E+01	.1004E+01	.7114E-01	.1331E+01	.9743E+00	.1033E+01	.3390E+01	-.1009E+01	-.1694E-01	.4633E-01
23	.1445E+01	.1326E+01	.1000E+01	.7792E-01	.1360E+01	.9729E+00	.1031E+01	.3365E+01	-.1025E+01	.1984E+00	.5188E-01
24	.1469E+01	.1342E+01	.9975E+00	.8135E-01	.1372E+01	.9735E+00	.1029E+01	.3348E+01	-.1012E+01	.6689E-01	.5473E-01
25	.1479E+01	.1346E+01	.9957E+00	.8292E-01	.1375E+01	.9755E+00	.1027E+01	.3336E+01	-.9801E+00	-.1272E+00	.5587E-01
26	.1483E+01	.1346E+01	.9945E+00	.8347E-01	.1372E+01	.9784E+00	.1027E+01	.3328E+01	-.9653E+00	-.1845E+00	.5628E-01
27	.1484E+01	.1343E+01	.9935E+00	.8376E-01	.1369E+01	.9817E+00	.1026E+01	.3320E+01	-.9576E+00	-.1671E+00	.5641E-01
28	.1483E+01	.1340E+01	.9926E+00	.8375E-01	.1364E+01	.9849E+00	.1025E+01	.3313E+01	-.9535E+00	-.1471E+00	.5636E-01
29	.1481E+01	.1336E+01	.9917E+00	.8344E-01	.1359E+01	.9875E+00	.1025E+01	.3308E+01	-.9514E+00	-.1304E+00	.5613E-01
30	.1478E+01	.1332E+01	.9910E+00	.8294E-01	.1354E+01	.9895E+00	.1024E+01	.3304E+01	-.9487E+00	-.1222E+00	.5576E-01
31	.1475E+01	.1328E+01	.9903E+00	.8242E-01	.1348E+01	.9912E+00	.1023E+01	.3301E+01	-.9648E+00	-.6745E-01	.5535E-01
32	.1472E+01	.1325E+01	.9897E+00	.8207E-01	.1344E+01	.9924E+00	.1022E+01	.3298E+01	-.9905E+00	-.5348E-02	.5504E-01
33	.1471E+01	.1324E+01	.9891E+00	.8204E-01	.1342E+01	.9933E+00	.1022E+01	.3295E+01	-.1086E+01	.1618E+00	.5493E-01
34	.1472E+01	.1324E+01	.9884E+00	.8236E-01	.1341E+01	.9935E+00	.1021E+01	.3292E+01	-.1214E+01	.3356E+00	.5506E-01
35	.1475E+01	.1327E+01	.9876E+00	.8299E-01	.1342E+01	.9932E+00	.1020E+01	.3289E+01	-.1217E+01	.3242E+00	.5543E-01
36	.1480E+01	.1330E+01	.9866E+00	.8378E-01	.1344E+01	.9929E+00	.1019E+01	.3285E+01	-.1182E+01	.2656E+00	.5598E-01
37	.1486E+01	.1334E+01	.9854E+00	.8462E-01	.1346E+01	.9930E+00	.1018E+01	.3279E+01	-.1386E+01	.4971E+00	.5667E-01
38	.1493E+01	.1338E+01	.9840E+00	.8551E-01	.1348E+01	.9934E+00	.1016E+01	.3272E+01	-.1560E+01	.6649E+00	.5754E-01
39	.1502E+01	.1343E+01	.9824E+00	.8645E-01	.1350E+01	.9941E+00	.1015E+01	.3264E+01	-.1272E+01	.3260E+00	.5856E-01
40	.1512E+01	.1347E+01	.9805E+00	.8729E-01	.1352E+01	.9958E+00	.1013E+01	.3253E+01	-.9943E+00	.1127E-01	.5966E-01
41	.1520E+01	.1350E+01	.9784E+00	.8788E-01	.1352E+01	.9985E+00	.1012E+01	.3240E+01	-.8360E+00	-.1609E+00	.6066E-01
42	.1526E+01	.1350E+01	.9763E+00	.8796E-01	.1349E+01	.1002E+01	.1010E+01	.3228E+01	-.6595E+00	-.3449E+00	.6132E-01
43	.1525E+01	.1347E+01	.9746E+00	.8715E-01	.1343E+01	.1006E+01	.1008E+01	.3218E+01	-.4890E+00	-.5162E+00	.6125E-01
44	.1514E+01	.1337E+01	.9735E+00	.8494E-01	.1330E+01	.1009E+01	.1006E+01	.3213E+01	-.3493E+00	-.6526E+00	.5997E-01
45	.1489E+01	.1318E+01	.9733E+00	.8074E-01	.1310E+01	.1011E+01	.1005E+01	.3217E+01	-.2395E+00	-.7623E+00	.5698E-01
46	.1445E+01	.1290E+01	.9742E+00	.7410E-01	.1280E+01	.1012E+01	.1003E+01	.3231E+01	-.1852E+00	-.8186E+00	.5195E-01
47	.1385E+01	.1252E+01	.9763E+00	.6484E-01	.1241E+01	.1011E+01	.1001E+01	.3256E+01	-.1779E+00	-.8299E+00	.4488E-01
48	.1310E+01	.1206E+01	.9797E+00	.5322E-01	.1194E+01	.1009E+01	.9987E+00	.3294E+01	-.1635E+00	-.8629E+00	.3619E-01
49	.1229E+01	.1155E+01	.9841E+00	.4002E-01	.1145E+01	.1004E+01	.9973E+00	.3342E+01	-.1449E+00	-.9108E+00	.2665E-01
50	.1148E+01	.1104E+01	.9891E+00	.2642E-01	.1096E+01	.9988E+00	.9966E+00	.3397E+01	-.1445E+00	-.9340E+00	.1724E-01
51	.1076E+01	.1059E+01	.9942E+00	.1381E-01	.1054E+01	.9932E+00	.9966E+00	.3452E+01	-.1434E+00	-.9577E+00	.8885E-02
52	.1019E+01	.1022E+01	.9986E+00	.3415E-02	.1019E+01	.9888E+00	.9973E+00	.3500E+01	-.1382E+00	-.9839E+00	.2246E-02
53	.9794E+00	.9947E+00	.1002E+01	-.4060E-02	.9944E+00	.9867E+00	.9984E+00	.3534E+01	-.1262E+00	-.1013E+01	-.2404E-02
54	.9556E+00	.9773E+00	.1004E+01	-.8572E-02	.9788E+00	.9869E+00	.9996E+00	.3554E+01	-.9911E-01	-.1028E+01	-.5174E-02
55	.9449E+00	.9681E+00	.1005E+01	-.1061E-01	.9707E+00	.9887E+00	.1000E+01	.3561E+01	-.5741E-01	-.1020E+01	-.6427E-02
56	.9432E+00	.9651E+00	.1005E+01	-.1092E-01	.9682E+00	.9913E+00	.1001E+01	.3559E+01	-.1235E-01	-.1009E+01	-.6619E-02
57	.9470E+00	.9661E+00	.1005E+01	-.1022E-01	.9691E+00	.9937E+00	.1001E+01	.3552E+01	.4418E-01	-.9866E+00	-.6186E-02
58	.9531E+00	.9693E+00	.1004E+01	-.9105E-02	.9718E+00	.9957E+00	.1001E+01	.3544E+01	.1321E+00	-.9228E+00	-.5471E-02

59	.9597E+00	.9731E+00	.1003E+01	-.7932E-02	.9751E+00	.9970E+00	.1001E+01	.3536E+01	.2754E+00	-.8013E+00	-.4703E-02
60	.9657E+00	.9769E+00	.1003E+01	-.6880E-02	.9782E+00	.9978E+00	.1000E+01	.3529E+01	.3953E+00	-.7119E+00	-.4002E-02
61	.9708E+00	.9802E+00	.1002E+01	-.5991E-02	.9810E+00	.9984E+00	.1000E+01	.3524E+01	.4791E+00	-.6627E+00	-.3406E-02
62	.9751E+00	.9830E+00	.1001E+01	-.5237E-02	.9834E+00	.9987E+00	.9996E+00	.3519E+01	.5496E+00	-.6259E+00	-.2907E-02
63	.9787E+00	.9855E+00	.1001E+01	-.4568E-02	.9854E+00	.9990E+00	.9994E+00	.3515E+01	.6031E+00	-.6129E+00	-.2479E-02
64	.9820E+00	.9877E+00	.1001E+01	-.3943E-02	.9873E+00	.9992E+00	.9992E+00	.3512E+01	.6500E+00	-.6030E+00	-.2097E-02
65	.9850E+00	.9897E+00	.1000E+01	-.3345E-02	.9891E+00	.9994E+00	.9990E+00	.3509E+01	.6936E+00	-.5920E+00	-.1748E-02
66	.9877E+00	.9915E+00	.1000E+01	-.2784E-02	.9907E+00	.9996E+00	.9990E+00	.3507E+01	.7296E+00	-.6067E+00	-.1433E-02
67	.9900E+00	.9930E+00	.9999E+00	-.2291E-02	.9922E+00	.9997E+00	.9990E+00	.3505E+01	.7629E+00	-.6064E+00	-.1165E-02
68	.9918E+00	.9942E+00	.9998E+00	-.1899E-02	.9933E+00	.9998E+00	.9990E+00	.3504E+01	.8080E+00	-.4712E+00	-.9590E-03
69	.9929E+00	.9950E+00	.9997E+00	-.1629E-02	.9941E+00	.9999E+00	.9990E+00	.3503E+01	.9062E+00	-.2102E+00	-.8241E-03
70	.9935E+00	.9954E+00	.9997E+00	-.1481E-02	.9945E+00	.9999E+00	.9990E+00	.3502E+01	.1029E+01	.6585E-01	-.7569E-03
71	.9937E+00	.9955E+00	.9996E+00	-.1428E-02	.9945E+00	.1000E+01	.9990E+00	.3502E+01	.1121E+01	.3056E+00	-.7405E-03
72	.9936E+00	.9954E+00	.9996E+00	-.1427E-02	.9945E+00	.1000E+01	.9989E+00	.3502E+01	.1145E+01	.4498E+00	-.7478E-03
73	.9936E+00	.9954E+00	.9996E+00	-.1427E-02	.9945E+00	.1000E+01	.9989E+00	.3502E+01	.1133E+01	.5321E+00	-.7478E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.2946E+00	.9000E+02	.5685E+01	0.	-.2500E+00	.1340E-12	0.	- 3140E-11	-.1178E+01	.9778E+00
2	.2946E+00	.8600E+02	.5685E+01	-.4634E-05	-.2500E+00	-.8541E-09	-.1636E-04	-.1047E-11	-.1178E+01	.9778E+00
3	.2946E+00	.8200E+02	.5685E+01	-.3659E-05	-.2500E+00	-.3502E-08	-.1295E-04	0.	-.1178E+01	.9768E+00
4	.2946E+00	.7800E+02	.5685E+01	- 774E-05	-.2500E+00	-.1380E-07	-.1334E-04	-.1256E-13	-.1178E+01	.9748E+00
5	.2946E+00	.7400E+02	.5685E+01	-.3944E-05	-.2500E+00	-.5496E-07	-.1379E-04	.7621E-02	-.1178E+01	.9717E+00
6	.3056E+00	.7000E+02	.5633E+01	-.3955E-05	-.2500E+00	-.2250E-06	-.1351E-04	.1690E-01	-.1223E+01	.9675E+00
7	.3193E+00	.6600E+02	.5575E+01	-.3860E-05	-.2500E+00	-.9590E-06	-.1269E-04	.1875E-01	-.1277E+01	.9623E+00
8	.3342E+00	.6200E+02	.5516E+01	-.3631E-05	-.2500E+00	-.4288E-05	-.1125E-04	.1953E-01	-.1337E+01	.9563E+00
9	.3505E+00	.5800E+02	.5458E+01	-.3244E-05	-.2501E+00	-.2019E-04	-.9196E-05	.2038E-01	-.1402E+01	.9499E+00
10	.3686E+00	.5400E+02	.5400E+01	-.2703E-05	-.2503E+00	-.1004E-03	-.6639E-05	.2007E-01	-.1473E+01	.9438E+00
11	.3894E+00	.5001E+02	.5349E+01	-.2033E-05	-.2514E+00	-.5274E-03	-.3794E-05	.2144E-01	-.1549E+01	.9388E+00
12	.4219E+00	.4605E+02	.5290E+01	-.1265E-05	-.2578E+00	-.2868E-02	-.9226E-06	.2322E-01	-.1636E+01	.9363E+00
13	.4987E+00	.4225E+02	.5239E+01	-.4850E-06	-.2892E+00	-.1457E-01	.1434E-05	.2397E-01	-.1723E+01	.9376E+00
14	.6130E+00	.3914E+02	.5193E+01	.9010E-07	-.3387E+00	-.1152E-01	.2803E-05	.2369E-01	-.1809E+01	.9439E+00
15	.7492E+00	.3635E+02	.5161E+01	.4335E-06	-.3989E+00	-.2865E-01	.3349E-05	.1211E-01	-.1877E+01	.9554E+00
16	.8951E+00	.3413E+02	.5161E+01	.5984E-06	-.4688E+00	-.1557E-01	.3358E-05	-.1249E-01	-.1910E+01	.9716E+00
17	.9785E+00	.3208E+02	.5189E+01	.6796E-06	-.5030E+00	-.1110E-01	.3235E-05	-.3705E-01	-.1946E+01	.9909E+00
18	.1081E+01	.3015E+02	.5237E+01	.6495E-06	-.5401E+00	-.1970E-01	.2765E-05	-.6494E-01	-.2003E+01	.1012E+01
19	.1269E+01	.2838E+02	.5310E+01	.5138E-06	-.6176E+00	-.5287E-01	.1987E-05	-.1332E+00	-.2067E+01	.1032E+01
20	.1571E+01	.2689E+02	.5447E+01	.3402E-06	-.7918E+00	-.1469E+00	.1181E-05	-.1242E+00	-.2097E+01	.1051E+01
21	.2214E+01	.2582E+02	.5468E+01	.1730E-06	-.1069E+01	-.2009E+00	.4969E-06	-.1329E+00	-.2096E+01	.1067E+01
22	.2808E+01	.2500E+02	.5567E+01	.8259E-07	-.1389E+01	-.2632E+00	.1407E-06	.1082E+00	-.2001E+01	.1080E+01
23	.3551E+01	.2440E+02	.5391E+01	.2634E-07	-.1741E+01	-.1150E+00	-.9603E-07	.5597E+00	-.2003E+01	.1089E+01
24	.4020E+01	.2387E+02	.5252E+01	-.1537E-08	-.2038E+01	.1104E+00	-.2319E-06	.2942E+00	-.1988E+01	.1095E+01
25	.4600E+01	.2341E+02	.5244E+01	-.4858E-08	-.2274E+01	.2996E+00	-.2652E-06	.8892E-01	-.2011E+01	.1099E+01
26	.5279E+01	.2300E+02	.5290E+01	.1451E-07	-.2492E+01	.4692E+00	-.2051E-06	-.2117E+00	-.2078E+01	.1102E+01
27	.5865E+01	.2262E+02	.5325E+01	.4496E-07	-.2680E+01	.6454E+00	-.1063E-06	-.1770E+00	-.2146E+01	.1105E+01
28	.6338E+01	.2226E+02	.5351E+01	.7576E-07	-.2828E+01	.8162E+00	-.8671E-08	-.1332E+00	-.2203E+01	.1107E+01
29	.6734E+01	.2192E+02	.5367E+01	.1011E-06	-.2944E+01	.9803E+00	.6943E-07	-.9550E-01	-.2255E+01	.1109E+01
30	.7060E+01	.2159E+02	.5379E+01	.1202E-06	-.3032E+01	.1134E+01	.1264E-06	-.7651E-01	-.2300E+01	.1110E+01
31	.7282E+01	.2127E+02	.5388E+01	.1351E-06	-.3088E+01	.1279E+01	.1683E-06	.4956E-01	-.2328E+01	.1110E+01
32	.7350E+01	.2094E+02	.5365E+01	.1481E-06	-.3117E+01	.1431E+01	.2018E-06	.1912E+00	-.2446E+01	.1111E+01
33	.7222E+01	.2061E+02	.5336E+01	.1603E-06	-.3084E+01	.1565E+01	.2276E-06	.5594E+00	-.2625E+01	.1111E+01
34	.6575E+01	.2021E+02	.5210E+01	.1799E-06	-.3018E+01	.1727E+01	.2550E-06	.8649E+00	-.2674E+01	.1112E+01
35	.5858E+01	.1979E+02	.5073E+01	.1993E-06	-.2888E+01	.1867E+01	.2726E-06	.7717E+00	-.2528E+01	.1112E+01
36	.5202E+01	.1935E+02	.4947E+01	.2181E-06	-.2718E+01	.1995E+01	.2847E-06	.6163E+00	-.2367E+01	.1113E+01
37	.4478E+01	.1888E+02	.4836E+01	.2451E-06	-.2438E+01	.2051E+01	.3077E-06	.9341E+00	-.2622E+01	.1114E+01
38	.3626E+01	.1818E+02	.4530E+01	.2916E-06	-.2230E+01	.2289E+01	.3538E-06	.9969E+00	-.2650E+01	.1116E+01
39	.3042E+01	.1742E+02	.4286E+01	.3342E-06	-.1982E+01	.2525E+01	.3950E-06	.5063E+00	-.2180E+01	.1119E+01
40	.2662E+01	.1675E+02	.4197E+01	.3708E-06	-.1704E+01	.2632E+01	.4437E-06	.1726E+00	-.1829E+01	.1122E+01
41	.2408E+01	.1605E+02	.4157E+01	.4061E-06	-.1456E+01	.2780E+01	.5191E-06	.2697E-01	-.1705E+01	.1126E+01
42	.2154E+01	.1533E+02	.4174E+01	.4588E-06	-.1186E+01	.2849E+01	.6508E-06	-.1058E+00	-.1562E+01	.1130E+01
43	.2012E+01	.1460E+02	.4255E+01	.5033E-06	-.9241E+00	.2847E+01	.8024E-06	-.2226E+00	-.1491E+01	.1133E+01
44	.1861E+01	.1385E+02	.4396E+01	.5621E-06	-.7086E+00	.2786E+01	.1006E-05	-.3119E+00	-.1400E+01	.1133E+01
45	.1720E+01	.1309E+02	.4590E+01	.6303E-06	-.5652E+00	.2696E+01	.1255E-05	-.3915E+00	-.1176E+01	.1129E+01
46	.1632E+01	.1248E+02	.4851E+01	.6857E-06	-.4778E+00	.2577E+01	.1500E-05	-.4466E+00	-.1006E+01	.1120E+01
47	.1548E+01	.1186E+02	.5137E+01	.7369E-06	-.4337E+00	.2456E+01	.1746E-05	-.4655E+00	-.9320E+00	.1106E+01
48	.1462E+01	.1128E+02	.5453E+01	.7784E-06	-.4188E+00	.2340E+01	.1972E-05	-.5055E+00	-.6666E+00	.1087E+01

49	.1395E+01	.1095E+02	.5829E+01	.7894E-06	-.3926E+00	.2258E+01	.2114E-05	-.5469E+00	-.4089E+00	.1064E+01
50	.1315E+01	.1069E+02	.6236E+01	.7810E-06	-.3631E+00	.2173E+01	.2188E-05	-.5555E+00	-.2961E+00	.1039E+01
51	.1226E+01	.1050E+02	.6674E+01	.7483E-06	-.3286E+00	.2088E+01	.2179E-05	-.5559E+00	-.1979E+00	.1016E+01
52	.1132E+01	.1037E+02	.7143E+01	.6930E-06	-.2869E+00	.2005E+01	.2091E-05	-.5503E+00	-.9977E-01	.9974E+00
53	.1036E+01	.1032E+02	.7647E+01	.6195E-06	-.2339E+00	.1926E+01	.1936E-05	-.5397E+00	.1581E-01	.9846E+00
54	.9506E+00	.1040E+02	.8185E+01	.5294E-06	-.1597E+00	.1846E+01	.1716E-05	-.5241E+00	.1055E+00	.9778E+00
55	.8592E+00	.1054E+02	.8749E+01	.4423E-06	-.7758E-01	.1757E+01	.1495E-05	-.4946E+00	.1267E+00	.9760E+00
56	.7768E+00	.1069E+02	.9336E+01	.3612E-06	-.1412E-02	.1669E+01	.1284E-05	-.4655E+00	.1476E+00	.9773E+00
57	.7030E+00	.1092E+02	.9948E+01	.2964E-06	.8010E-01	.1582E+01	.1119E-05	-.4335E+00	.2129E+00	.9801E+00
58	.6524E+00	.1130E+02	.1057E+02	.2472E-06	.1781E+00	.1512E+01	.9930E-06	-.3907E+00	.3462E+00	.9833E+00
59	.6182E+00	.1198E+02	.1115E+02	.2141E-06	.3099E+00	.1405E+01	.9073E-06	-.3396E+00	.4552E+00	.9862E+00
60	.5842E+00	.1277E+02	.1167E+02	.1946E-06	.4329E+00	.1283E+01	.8568E-06	-.3033E+00	.4506E+00	.9885E+00
61	.5504E+00	.1353E+02	.1218E+02	.1818E-06	.5269E+00	.1166E+01	.8184E-06	-.2819E+00	.4205E+00	.9904E+00
62	.5063E+00	.1430E+02	.1269E+02	.1791E-06	.5921E+00	.1040E+01	.8060E-06	-.2624E+00	.3943E+00	.9919E+00
63	.4560E+00	.1508E+02	.1322E+02	.1905E-06	.6293E+00	.9144E+00	.8335E-06	-.2499E+00	.3615E+00	.9932E+00
64	.4026E+00	.1589E+02	.1379E+02	.2237E-06	.6421E+00	.7961E+00	.9266E-06	-.2359E+00	.3345E+00	.9943E+00
65	.3478E+00	.1675E+02	.1439E+02	.2871E-06	.6364E+00	.6842E+00	.1118E-05	-.2192E+00	.3108E+00	.9953E+00
66	.2946E+00	.1767E+02	.1505E+02	.3848E-06	.6149E+00	.5810E+00	.1430E-05	-.2105E+00	.2802E+00	.9962E+00
67	.2486E+00	.1865E+02	.1582E+02	.5042E-06	.5815E+00	.4921E+00	.1832E-05	-.1973E+00	.2605E+00	.9970E+00
68	.2082E+00	.1977E+02	.1664E+02	.6202E-06	.5509E+00	.4154E+00	.2250E-05	-.1417E+00	.2711E+00	.9975E+00
69	.1844E+00	.2125E+02	.1718E+02	.6387E-06	.5369E+00	.3338E+00	.2356E-05	-.6082E-01	.3056E+00	.9979E+00
70	.1732E+00	.2308E+02	.1730E+02	.5142E-06	.5345E+00	.2424E+00	.1970E-05	.1993E-01	.3330E+00	.9981E+00
71	.1737E+00	.2510E+02	.1695E+02	.2923E-06	.5364E+00	.1484E+00	.1224E-05	.9589E-01	.3503E+00	.9982E+00
72	.1969E+00	.2712E+02	.1619E+02	.2459E-06	.5404E+00	.6517E-01	.1199E-05	.1634E+00	.3842E+00	.9981E+00
73	.2351E+00	.2900E+02	.1529E+02	0.	.5512E+00	0.	0.	.2276E+00	.4265E+00	.9981E+00

SECOND INDEX= 18

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9117E+00	.9415E+00	.1000E+01	-.1868E-01	.9352E+00	.9920E+00	.9912E+00	.3558E+01	-.1000E+01	.1868E-01	-.1030E-01
2	.9117E+00	.9415E+00	.1000E+01	-.1868E-01	.9352E+00	.9920E+00	.9912E+00	.3558E+01	-.1000E+01	.1868E-01	-.1030E-01
3	.9092E+00	.9400E+00	.9999E+00	-.1922E-01	.9332E+00	.9916E+00	.9907E+00	.3559E+01	-.9999E+00	.1922E-01	-.1059E-01
4	.9036E+00	.9363E+00	.9996E+00	-.2047E-01	.9286E+00	.9908E+00	.9896E+00	.3562E+01	-.9996E+00	.2046E-01	-.1124E-01
5	.8948E+00	.9304E+00	.9992E+00	-.2249E-01	.9215E+00	.9900E+00	.9881E+00	.3567E+01	-.9992E+00	.2478E-01	-.1226E-01
6	.8830E+00	.9222E+00	.9989E+00	-.2528E-01	.9122E+00	.9891E+00	.9866E+00	.3574E+01	-.9989E+00	.3017E-01	-.1364E-01
7	.8687E+00	.9121E+00	.9989E+00	-.2877E-01	.9013E+00	.9882E+00	.9853E+00	.3584E+01	-.9989E+00	.3396E-01	-.1531E-01
8	.8525E+00	.9004E+00	.9995E+00	-.3283E-01	.8896E+00	.9874E+00	.9846E+00	.3597E+01	-.9995E+00	.3800E-01	-.1720E-01
9	.8352E+00	.8878E+00	.1001E+01	-.3727E-01	.8779E+00	.9866E+00	.9849E+00	.3614E+01	-.1001E+01	.4242E-01	-.1922E-01
10	.8179E+00	.8750E+00	.1003E+01	-.4178E-01	.8673E+00	.9861E+00	.9866E+00	.3634E+01	-.1003E+01	.4621E-01	-.2123E-01
11	.8023E+00	.8631E+00	.1006E+01	-.4588E-01	.8591E+00	.9859E+00	.9899E+00	.3657E+01	-.1006E+01	.5052E-01	-.2306E-01
12	.7905E+00	.8538E+00	.1010E+01	-.4888E-01	.8548E+00	.9862E+00	.9949E+00	.3679E+01	-.1010E+01	.5403E-01	-.2444E-01
13	.7855E+00	.8493E+00	.1015E+01	-.4988E-01	.8564E+00	.9873E+00	.1001E+01	.3698E+01	-.1014E+01	.5473E-01	-.2501E-01
14	.7908E+00	.8521E+00	.1020E+01	-.4794E-01	.8661E+00	.9894E+00	.1009E+01	.3709E+01	-.1019E+01	.5253E-01	-.2439E-01
15	.8098E+00	.8649E+00	.1024E+01	-.4227E-01	.8856E+00	.9922E+00	.1017E+01	.3706E+01	-.1023E+01	.4254E-01	-.2218E-01
16	.8451E+00	.8899E+00	.1026E+01	-.3258E-01	.9173E+00	.9949E+00	.1024E+01	.3688E+01	-.1026E+01	.2090E-01	-.1807E-01
17	.8981E+00	.9285E+00	.1027E+01	-.1917E-01	.9613E+00	.9964E+00	.1030E+01	.3656E+01	-.1027E+01	-.7035E-02	-.1188E-01
18	.9687E+00	.9809E+00	.1026E+01	-.2920E-02	.1018E+01	.9953E+00	.1034E+01	.3613E+01	-.1027E+01	-.3845E-01	-.3646E-02
19	.1054E+01	.1045E+01	.1023E+01	.1483E-01	.1085E+01	.9912E+00	.1036E+01	.3565E+01	-.1027E+01	-.7857E-01	.6328E-02
20	.1149E+01	.1116E+01	.1019E+01	.3245E-01	.1158E+01	.9846E+00	.1036E+01	.3518E+01	-.1026E+01	-.9616E-01	.1733E-01
21	.1242E+01	.1187E+01	.1014E+01	.4830E-01	.1228E+01	.9771E+00	.1036E+01	.3474E+01	-.1022E+01	-.1173E+00	.2824E-01
22	.1324E+01	.1248E+01	.1010E+01	.6112E-01	.1288E+01	.9708E+00	.1034E+01	.3437E+01	-.1011E+01	-.6258E-02	.3779E-01
23	.1386E+01	.1293E+01	.1005E+01	.7027E-01	.1330E+01	.9669E+00	.1032E+01	.3408E+01	-.1055E+01	.1901E+00	.4496E-01
24	.1425E+01	.1320E+01	.1002E+01	.7595E-01	.1354E+01	.9655E+00	.1030E+01	.3386E+01	-.1023E+01	.5950E-01	.4951E-01
25	.1449E+01	.1335E+01	.9994E+00	.7955E-01	.1366E+01	.9662E+00	.1028E+01	.3369E+01	-.9583E+00	-.1671E+00	.5231E-01
26	.1466E+01	.1344E+01	.9974E+00	.8217E-01	.1373E+01	.9684E+00	.1027E+01	.3355E+01	-.9379E+00	-.2299E+00	.5430E-01
27	.1478E+01	.1350E+01	.9957E+00	.8411E-01	.1377E+01	.9714E+00	.1026E+01	.3342E+01	-.9340E+00	-.2031E+00	.5578E-01
28	.1486E+01	.1352E+01	.9942E+00	.8529E-01	.1378E+01	.9744E+00	.1026E+01	.3331E+01	-.9332E+00	-.1780E+00	.5672E-01
29	.1489E+01	.1351E+01	.9930E+00	.8566E-01	.1375E+01	.9772E+00	.1025E+01	.3323E+01	-.9334E+00	-.1592E+00	.5707E-01
30	.1488E+01	.1348E+01	.9920E+00	.8541E-01	.1371E+01	.9796E+00	.1024E+01	.3317E+01	-.9333E+00	-.1465E+00	.5692E-01
31	.1484E+01	.1344E+01	.9912E+00	.8486E-01	.1365E+01	.9816E+00	.1023E+01	.3313E+01	-.9563E+00	-.8112E-01	.5650E-01
32	.1481E+01	.1340E+01	.9906E+00	.8436E-01	.1360E+01	.9831E+00	.1022E+01	.3310E+01	-.9902E+00	-.7631E-02	.5607E-01
33	.1478E+01	.1338E+01	.9901E+00	.8411E-01	.1356E+01	.9839E+00	.1022E+01	.3308E+01	-.1121E+01	.2041E+00	.5580E-01
34	.1479E+01	.1338E+01	.9895E+00	.8424E-01	.1355E+01	.9838E+00	.1021E+01	.3306E+01	-.1283E+01	.4135E+00	.5581E-01
35	.1481E+01	.1340E+0.	.9888E+00	.8469E-01	.1356E+01	.9830E+00	.1020E+01	.3304E+01	-.1275E+01	.3862E+00	.5609E-01
36	.1485E+01	.1344E+01	.9879E+00	.8530E-01	.1358E+01	.9823E+00	.1019E+01	.3301E+01	-.1219E+01	.3001E+00	.5660E-01
37	.1491E+01	.1347E+01	.9867E+00	.8597E-01	.1360E+01	.9823E+00	.1017E+01	.3295E+01	-.1428E+01	.5250E+00	.5730E-01

38	.1499E+01	.1352E+01	.9851E+00	.8671E-01	.1362E+01	.9829E+00	.1016E+01	.3287E+01	-.1592E+01	.6703E+00	.5820E-01
39	.1509E+01	.1357E+01	.9832E+00	.8751E-01	.1364E+01	.9842E+00	.1014E+01	.3276E+01	-.1195E+01	.2264E+00	.5933E-01
40	.1520E+01	.1361E+01	.9808E+00	.8831E-01	.1365E+01	.9870E+00	.1012E+01	.3262E+01	-.8313E+00	-.1652E+00	.6062E-01
41	.1531E+01	.1364E+01	.9782E+00	.8896E-01	.1364E+01	.9915E+00	.1011E+01	.3245E+01	-.6371E+00	-.3645E+00	.6188E-01
42	.1539E+01	.1363E+01	.9755E+00	.8915E-01	.1360E+01	.9970E+00	.1009E+01	.3227E+01	-.4654E+00	-.5372E+00	.6282E-01
43	.1540E+01	.1358E+01	.9732E+00	.8837E-01	.1352E+01	.1003E+01	.1007E+01	.3212E+01	-.3569E+00	-.6445E+00	.6293E-01
44	.1528E+01	.1346E+01	.9715E+00	.8593E-01	.1336E+01	.1008E+01	.1005E+01	.3204E+01	-.3155E+00	-.6839E+00	.6158E-01
45	.1499E+01	.1324E+01	.9710E+00	.8114E-01	.1312E+01	.1012E+01	.1002E+01	.3206E+01	-.2812E+00	-.7243E+00	.5819E-01
46	.1449E+01	.1291E+01	.9719E+00	.7346E-01	.1277E+01	.1014E+01	.1000E+01	.3220E+01	-.2662E+00	-.7499E+00	.5236E-01
47	.1379E+01	.1246E+01	.9745E+00	.6272E-01	.1231E+01	.1013E+01	.9978E+00	.3249E+01	-.2949E+00	-.7309E+00	.4415E-01
48	.1293E+01	.1193E+01	.9785E+00	.4931E-01	.1178E+01	.1010E+01	.9959E+00	.3294E+01	-.2872E+00	-.7729E+00	.3415E-01
49	.1200E+01	.1136E+01	.9838E+00	.3425E-01	.1123E+01	.1005E+01	.9946E+00	.3351E+01	-.2717E+00	-.8448E+00	.2337E-01
50	.1112E+01	.1081E+01	.9898E+00	.1913E-01	.1071E+01	.9975E+00	.9942E+00	.3416E+01	-.2863E+00	-.8720E+00	.1304E-01
51	.1037E+01	.1033E+01	.9957E+00	.5725E-02	.1027E+01	.9906E+00	.9949E+00	.3479E+01	-.3009E+00	-.9027E+00	.4270E-02
52	.9811E+00	.9965E+00	.1001E+01	-.4483E-02	.9940E+00	.9859E+00	.9964E+00	.3530E+01	-.3125E+00	-.9411E+00	-.2206E-02
53	.9467E+00	.9724E+00	.1004E+01	-.1085E-01	.9728E+00	.9846E+00	.9983E+00	.3562E+01	-.3218E+00	-.1005E+01	-.6214E-02
54	.9309E+00	.9595E+00	.1006E+01	-.1367E-01	.9621E+00	.9863E+00	.1000E+01	.3575E+01	-.3186E+00	-.1052E+01	-.8062E-02
55	.9285E+00	.9555E+00	.1006E+01	-.1389E-01	.9592E+00	.9896E+00	.1001E+01	.3574E+01	-.2956E+00	-.1056E+01	-.8336E-02
56	.9342E+00	.9573E+00	.1006E+01	-.1264E-01	.9611E+00	.9930E+00	.1002E+01	.3565E+01	-.2692E+00	-.1062E+01	-.7676E-02
57	.9433E+00	.9620E+00	.1005E+01	-.1083E-01	.9655E+00	.9959E+00	.1002E+01	.3553E+01	-.2402E+00	-.1088E+01	-.6611E-02
58	.9529E+00	.9676E+00	.1004E+01	-.9044E-02	.9704E+00	.9978E+00	.1001E+01	.3541E+01	-.2034E+00	-.1122E+01	-.5498E-02
59	.9612E+00	.9729E+00	.1003E+01	-.7541E-02	.9749E+00	.9989E+00	.1001E+01	.3532E+01	-.7485E-01	-.1056E+01	-.4523E-02
60	.9679E+00	.9774E+00	.1002E+01	-.6378E-02	.9786E+00	.9994E+00	.1000E+01	.3525E+01	.8410E-01	-.9433E+00	-.3745E-02
61	.9730E+00	.9809E+00	.1002E+01	-.5491E-02	.9816E+00	.9997E+00	.1000E+01	.3520E+01	.2076E+00	-.8621E+00	-.3145E-02
62	.9771E+00	.9837E+00	.1001E+01	-.4782E-02	.9839E+00	.9998E+00	.9996E+00	.3516E+01	.3055E+00	-.8063E+00	-.2673E-02
63	.9804E+00	.9861E+00	.1001E+01	-.4168E-02	.9859E+00	.9999E+00	.9993E+00	.3512E+01	.3800E+00	-.7770E+00	-.2282E-02
64	.9834E+00	.9882E+00	.1000E+01	-.3595E-02	.9877E+00	.9999E+00	.9991E+00	.3510E+01	.4404E+00	-.7613E+00	-.1934E-02
65	.9862E+00	.9901E+00	.1000E+01	-.3041E-02	.9894E+00	.1000E+01	.9990E+00	.3507E+01	.4931E+00	-.7511E+00	-.1612E-02
66	.9887E+00	.9919E+00	.9999E+00	-.2512E-02	.9910E+00	.1000E+01	.9989E+00	.3505E+01	.5373E+00	-.7523E+00	-.1317E-02
67	.9909E+00	.9935E+00	.9998E+00	-.2032E-02	.9925E+00	.1000E+01	.9990E+00	.3504E+01	.5757E+00	-.7491E+00	-.1057E-02
68	.9927E+00	.9947E+00	.9997E+00	-.1633E-02	.9938E+00	.1000E+01	.9990E+00	.3502E+01	.6326E+00	-.6211E+00	-.8470E-03
69	.9940E+00	.9957E+00	.9997E+00	-.1338E-02	.9948E+00	.1000E+01	.9991E+00	.3502E+01	.7797E+00	-.3479E+00	-.6965E-03
70	.9948E+00	.9962E+00	.9997E+00	-.1151E-02	.9954E+00	.1000E+01	.9991E+00	.3501E+01	.9799E+00	-.3192E-01	-.6055E-03
71	.9952E+00	.9965E+00	.9997E+00	-.1060E-02	.9957E+00	.1000E+01	.9991E+00	.3501E+01	.1175E+01	.3165E+00	-.5644E-03
72	.9952E+00	.9965E+00	.9997E+00	-.1034E-02	.9957E+00	.1000E+01	.9991E+00	.3501E+01	.1231E+01	.5418E+00	-.5552E-03
73	.9952E+00	.9965E+00	.9997E+00	-.1034E-02	.9957E+00	.1000E+01	.9991E+00	.3501E+01	.1202E+01	.6671E+00	-.5552E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.2685E+00	.9000E+02	.4777E+01	0.	-.2500E+00	-.1221E-12	0.	-.1046E-11	-.1074E+01	.9684E+00
2	.2685E+00	.8600E+02	.4777E+01	-.3244E-05	-.2500E+00	-.3557E-09	-.1110E-04	-.3587E-12	-.1074E+01	.9684E+00
3	.2685E+00	.8200E+02	.4777E+01	-.2536E-05	-.2500E+00	-.1301E-08	-.8733E-05	-.7632E-14	-.1074E+01	.9673E+00
4	.2685E+00	.7800E+02	.4777E+01	-.2572E-05	-.2500E+00	-.4963E-08	-.8838E-05	-.3816E-14	-.1074E+01	.9651E+00
5	.2685E+00	.7400E+02	.4777E+01	-.2635E-05	-.2500E+00	-.1964E-07	-.8900E-05	.2463E-02	-.1074E+01	.9618E+00
6	.2788E+00	.7000E+02	.4758E+01	-.2588E-05	-.2500E+00	-.8017E-07	-.8394E-05	.5464E-02	-.1115E+01	.9575E+00
7	.2916E+00	.6600E+02	.4738E+01	-.2476E-05	-.2500E+00	-.3412E-06	-.7473E-05	.6062E-02	-.1166E+01	.9525E+00
8	.3055E+00	.6200E+02	.4717E+01	-.2288E-05	-.2500E+00	-.1523E-05	-.6140E-05	.6319E-02	-.1222E+01	.9468E+00
9	.3208E+00	.5800E+02	.4696E+01	-.2014E-05	-.2501E+00	-.7161E-05	-.4445E-05	.6599E-02	-.1283E+01	.9408E+00
10	.3378E+00	.5400E+02	.4676E+01	-.1660E-05	-.2503E+00	-.3545E-04	-.2522E-05	.5962E-02	-.1350E+01	.9348E+00
11	.3575E+00	.5001E+02	.4661E+01	-.1243E-05	-.2516E+00	-.1866E-03	-.5555E-06	.6556E-02	-.1421E+01	.9295E+00
12	.3886E+00	.4605E+02	.4639E+01	-.7795E-06	-.2585E+00	-.1005E-02	.1206E-05	.7667E-02	-.1503E+01	.9258E+00
13	.4590E+00	.4227E+02	.4621E+01	-.3206E-06	-.2898E+00	-.4933E-02	.2346E-05	.7566E-02	-.1584E+01	.9249E+00
14	.5649E+00	.3915E+02	.4606E+01	.1418E-07	-.3392E+00	-.4007E-02	.2757E-05	.7504E-02	-.1665E+01	.9281E+00
15	.6888E+00	.3638E+02	.4595E+01	.2104E-06	-.3990E+00	-.9561E-02	.2692E-05	.4362E-03	-.1726E+01	.9362E+00
16	.8209E+00	.3414E+02	.4605E+01	.2993E-06	-.4666E+00	-.5385E-02	.2355E-05	-.2002E-01	-.1759E+01	.9496E+00
17	.9019E+00	.3209E+02	.4644E+01	.3265E-06	-.5028E+00	-.3609E-02	.1974E-05	-.4577E-01	-.1794E+01	.9672E+00
18	.1001E+01	.3016E+02	.4706E+01	.2809E-06	-.5427E+00	-.5612E-02	.1396E-05	-.7441E-01	-.1846E+01	.9876E+00
19	.1183E+01	.2840E+02	.4792E+01	.1736E-06	-.6252E+00	-.1500E-01	.6916E-06	-.1178E+00	-.1894E+01	.1009E+01
20	.1433E+01	.2696E+02	.4905E+01	.5334E-07	-.7956E+00	-.4318E-01	.6413E-07	-.1122E+00	-.1808E+01	.1029E+01
21	.1986E+01	.2588E+02	.4949E+01	-.4056E-07	-.1056E+01	-.4725E-01	-.3504E-06	-.1274E+00	-.1886E+01	.1046E+01
22	.2456E+01	.2506E+02	.5034E+01	-.9641E-07	-.1340E+01	-.3573E-01	-.6048E-06	.9941E-01	-.1830E+01	.1061E+01
23	.3078E+01	.2439E+02	.4868E+01	-.1220E-06	-.1632E+01	.1434E+00	-.6887E-06	.4901E+00	-.1929E+01	.1072E+01
24	.3510E+01	.2380E+02	.4715E+01	-.1342E-06	-.1891E+01	.3944E+00	-.7542E-06	.2527E+00	-.1909E+01	.1079E+01
25	.4040E+01	.2330E+02	.4724E+01	-.1192E-06	-.2103E+01	.5820E+00	-.7156E-06	-.1602E+00	-.1877E+01	.1085E+01
26	.4674E+01	.2287E+02	.4795E+01	-.8228E-07	-.2317E+01	.7346E+00	-.5868E-06	-.2846E+00	-.1927E+01	.1090E+01
27	.5233E+01	.2248E+02	.4846E+01	-.3898E-07	-.2507E+01	.8891E+00	-.4345E-06	-.2319E+00	-.2005E+01	.1095E+01

28	.5687E+01	.2211E+02	.4883E+01	.1268E-08	-.2664E+01	.1034E+01	-.2964E-06	-.1791E+00	-.2066E+01	.1099E+01
29	.6063E+01	.2175E+02	.4909E+01	.3419E-07	-.2788E+01	.1169E+01	-.1874E-06	-.1391E+00	-.2117E+01	.1102E+01
30	.6360E+01	.2141E+02	.4929E+01	.5981E-07	-.2879E+01	.1291E+01	-.1052E-06	-.1118E+00	-.2159E+01	.1104E+01
31	.6545E+01	.2107E+02	.4944E+01	.8014E-07	-.2933E+01	.1402E+01	-.4352E-07	.2741E-01	-.2245E+01	.1105E+01
32	.6569E+01	.2072E+02	.4921E+01	.9748E-07	-.2950E+01	.1519E+01	.3699E-08	.1824E+00	-.2321E+01	.1105E+01
33	.6387E+01	.2037E+02	.4888E+01	.1128E-06	-.2893E+01	.1612E+01	.3571E-07	.6142E+00	-.2550E+01	.1105E+01
34	.5717E+01	.1993E+02	.4728E+01	.1322E-06	-.2791E+01	.1725E+01	.5257E-07	.9526E+00	-.2637E+01	.1105E+01
35	.4999E+01	.1944E+02	.4555E+01	.1501E-06	-.2617E+01	.1826E+01	.5321E-07	.8247E+00	-.2485E+01	.1105E+01
36	.4385E+01	.1893E+02	.4398E+01	.1655E-06	-.2407E+01	.1950E+01	.4381E-07	.6314E+00	-.2333E+01	.1106E+01
37	.3664E+01	.1838E+02	.4267E+01	.1906E-06	-.2054E+01	.1971E+01	.3385E-07	.9169E+00	-.2663E+01	.1107E+01
38	.3033E+01	.1748E+02	.3898E+01	.2215E-06	-.1824E+01	.2295E+01	.3040E-07	.9561E+00	-.2865E+01	.1109E+01
39	.2571E+01	.1649E+02	.3637E+01	.2524E-06	-.1529E+01	.2568E+01	.4538E-07	.4087E+00	-.2367E+01	.1112E+01
40	.2199E+01	.1564E+02	.3580E+01	.2893E-06	-.1209E+01	.2597E+01	.8852E-07	.4272E-01	-.1910E+01	.1117E+01
41	.1950E+01	.1475E+02	.3598E+01	.3269E-06	-.9724E+00	.2651E+01	.1736E-06	-.9965E-01	-.1734E+01	.1122E+01
42	.1733E+01	.1386E+02	.3682E+01	.3757E-06	-.7938E+00	.2653E+01	.3112E-06	-.2090E+00	-.1485E+01	.1129E+01
43	.1618E+01	.1304E+02	.3839E+01	.4160E-06	-.6736E+00	.2598E+01	.4821E-06	-.2788E+00	-.1327E+01	.1133E+01
44	.1508E+01	.1222E+02	.4027E+01	.4643E-06	-.6071E+00	.2523E+01	.6926E-06	-.2994E+00	-.1240E+01	.1135E+01
45	.1399E+01	.1140E+02	.4236E+01	.5205E-06	-.5843E+00	.2425E+01	.9400E-06	-.3340E+00	-.1007E+01	.1132E+01
46	.1353E+01	.1078E+02	.4504E+01	.5529E-06	-.5809E+00	.2349E+01	.1153E-05	-.3677E+00	-.8420E+00	.1123E+01
47	.1302E+01	.1015E+02	.4779E+01	.5768E-06	-.5958E+00	.2259E+01	.1340E-05	-.3668E+00	-.7940E+00	.1106E+01
48	.1242E+01	.9557E+01	.5068E+01	.5857E-06	-.6212E+00	.2161E+01	.1476E-05	-.4067E+00	-.5839E+00	.1084E+01
49	.1195E+01	.9211E+01	.5435E+01	.5620E-06	-.6275E+00	.2095E+01	.1509E-05	-.4559E+00	-.3823E+00	.1057E+01
50	.1129E+01	.8918E+01	.5831E+01	.5170E-06	-.6253E+00	.2015E+01	.1461E-05	-.4657E+00	-.3054E+00	.1029E+01
51	.1053E+01	.8670E+01	.6259E+01	.4468E-06	-.6157E+00	.1931E+01	.1322E-05	-.4700E+00	-.2373E+00	.1004E+01
52	.9703E+00	.8467E+01	.6723E+01	.3547E-06	-.5966E+00	.1844E+01	.1102E-05	-.4717E+00	-.1687E+00	.9845E+00
53	.8929E+00	.8302E+01	.7224E+01	.2458E-06	-.5651E+00	.1759E+01	.8100E-06	-.4700E+00	-.1176E+00	.9716E+00
54	.8028E+00	.8184E+01	.7808E+01	.1257E-06	-.5268E+00	.1674E+01	.4870E-06	-.4779E+00	.2010E-02	.9701E+00
55	.7189E+00	.8127E+01	.8428E+01	.5311E-08	-.4390E+00	.1587E+01	.1464E-06	-.4574E+00	.1729E-01	.9717E+00
56	.6425E+00	.8353E+01	.9082E+01	-.1104E-06	-.3721E+00	.1502E+01	-.1869E-06	-.4378E+00	.4082E-01	.9759E+00
57	.5751E+00	.8454E+01	.9791E+01	-.2164E-06	-.2965E+00	.1424E+01	-.4953E-06	-.4268E+00	.1098E+00	.9806E+00
58	.5204E+00	.8734E+01	.1057E+02	-.3047E-06	-.2028E+00	.1370E+01	-.7577E-06	-.4241E+00	.2600E+00	.9847E+00
59	.4917E+00	.9438E+01	.1140E+02	-.3791E-06	-.5693E-01	.1285E+01	-.9845E-06	-.3995E+00	.3796E+00	.9880E+00
60	.4602E+00	.1028E+02	.1219E+02	-.4481E-06	.8151E-01	.1197E+01	-.1204E-05	-.3586E+00	.3801E+00	.9903E+00
61	.4318E+00	.1109E+02	.1295E+02	-.5185E-06	.1924E+00	.1113E+01	-.1441E-05	-.3271E+00	.3518E+00	.9920E+00
62	.3971E+00	.1191E+02	.1371E+02	-.6038E-06	.2792E+00	.1019E+01	-.1739E-05	-.3012E+00	.3231E+00	.9931E+00
63	.3581E+00	.1272E+02	.1447E+02	-.7013E-06	.3400E+00	.9212E+00	-.2094E-05	-.2811E+00	.2880E+00	.9943E+00
64	.3168E+00	.1352E+02	.1528E+02	-.8024E-06	.3789E+00	.8247E+00	-.2483E-05	-.2647E+00	.2599E+00	.9952E+00
65	.2740E+00	.1436E+02	.1614E+02	-.8964E-06	.3980E+00	.7300E+00	-.2872E-05	-.2468E+00	.2358E+00	.9960E+00
66	.2325E+00	.1524E+02	.1708E+02	-.9654E-06	.4008E+00	.6401E+00	-.3199E-05	-.2311E+00	.2110E+00	.9968E+00
67	.1960E+00	.1617E+02	.1813E+02	-.9854E-06	.3897E+00	.5573E+00	-.3374E-05	-.2155E+00	.1947E+00	.9975E+00
68	.1631E+00	.1723E+02	.1928E+02	-.9649E-06	.3740E+00	.4854E+00	-.3407E-05	-.1650E+00	.2219E+00	.9980E+00
69	.1422E+00	.1890E+02	.2015E+02	-.8814E-06	.3739E+00	.4062E+00	-.3193E-05	-.8925E-01	.2834E+00	.9984E+00
70	.1308E+00	.2121E+02	.2054E+02	-.7970E-06	.3897E+00	.3142E+00	-.2928E-05	-.7966E-02	.3293E+00	.9986E+00
71	.1297E+00	.2393E+02	.2028E+02	-.7509E-06	.4200E+00	.2086E+00	-.2754E-05	.8795E-01	.3525E+00	.9987E+00
72	.1434E+00	.2665E+02	.1918E+02	-.1092E-05	.4382E+00	.9163E-01	-.3989E-05	.1740E+00	.3637E+00	.9987E+00
73	.1750E+00	.2900E+02	.1785E+02	0.	.4617E+00	-.4973E-13	0.	.2533E+00	.3790E+00	.9987E+00

SECOND INDEX= 19

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9038E+00	.9446E+00	.1002E+01	-.2046E-01	.9388E+00	.9789E+00	.9908E+00	.3586E+01	-.1002E+01	.2046E-01	-.1121E-01
2	.9038E+00	.9446E+00	.1002E+01	-.2046E-01	.9388E+00	.9789E+00	.9908E+00	.3586E+01	-.1002E+01	.2046E-01	-.1122E-01
3	.9012E+00	.9430E+00	.1002E+01	-.2106E-01	.9368E+00	.9783E+00	.9902E+00	.3588E+01	-.1002E+01	.2106E-01	-.1153E-01
4	.8953E+00	.9393E+00	.1002E+01	-.2240E-01	.9321E+00	.9773E+00	.9891E+00	.3592E+01	-.1002E+01	.2240E-01	-.1221E-01
5	.8863E+00	.9334E+00	.1001E+01	-.2451E-01	.9250E+00	.9761E+00	.9875E+00	.3597E+01	-.1001E+01	.2236E-01	-.1326E-01
6	.8748E+00	.9256E+00	.1001E+01	-.2730E-01	.9159E+00	.9749E+00	.9859E+00	.3605E+01	-.1001E+01	.2271E-01	-.1460E-01
7	.8614E+00	.9162E+00	.1001E+01	-.3065E-01	.9057E+00	.9737E+00	.9846E+00	.3614E+01	-.1001E+01	.2578E-01	-.1616E-01
8	.8467E+00	.9055E+00	.1001E+01	-.3444E-01	.8950E+00	.9729E+00	.9839E+00	.3627E+01	-.1001E+01	.2959E-01	-.1788E-01
9	.8311E+00	.8940E+00	.1003E+01	-.3854E-01	.8844E+00	.9723E+00	.9844E+00	.3642E+01	-.1003E+01	.3370E-01	-.1970E-01
10	.8150E+00	.8816E+00	.1005E+01	-.4280E-01	.8743E+00	.9722E+00	.9861E+00	.3661E+01	-.1005E+01	.3743E-01	-.2158E-01
11	.7989E+00	.8689E+00	.1008E+01	-.4701E-01	.8651E+00	.9727E+00	.9894E+00	.3683E+01	-.1008E+01	.4180E-01	-.2345E-01
12	.7840E+00	.8566E+00	.1012E+01	-.5076E-01	.8577E+00	.9738E+00	.9942E+00	.3706E+01	-.1012E+01	.4620E-01	-.2519E-01
13	.7724E+00	.8462E+00	.1017E+01	-.5343E-01	.8532E+00	.9757E+00	.1000E+01	.3729E+01	-.1017E+01	.4848E-01	-.2655E-01
14	.7669E+00	.8402E+00	.1021E+01	-.5413E-01	.8537E+00	.9787E+00	.1008E+01	.3747E+01	-.1022E+01	.4951E-01	-.2718E-01
15	.7716E+00	.8414E+00	.1026E+01	-.5185E-01	.8615E+00	.9826E+00	.1015E+01	.3754E+01	-.1027E+01	.4540E-01	-.2664E-01
16	.7902E+00	.8531E+00	.1029E+01	-.4575E-01	.8792E+00	.9871E+00	.1022E+01	.3746E+01	-.1030E+01	.2860E-01	-.2447E-01

17	.8260E+00	.8779E+00	.1031E+01	-.3545E-01	.9093E+00	.9912E+00	.1028E+01	.3721E+01	-.1031E+01	.2122E-02	-.2029E-01
18	.8810E+00	.9178E+00	.1030E+01	-.2123E-01	.9534E+00	.9933E+00	.1032E+01	.3681E+01	-.1031E+01	-.2838E-01	-.1388E-01
19	.9544E+00	.9728E+00	.1028E+01	-.4166E-02	.1011E+01	.9920E+00	.1035E+01	.3632E+01	-.1028E+01	-.5468E-01	-.5317E-02
20	.1042E+01	.1039E+01	.1024E+01	.1401E-01	.1080E+01	.9870E+00	.1036E+01	.3582E+01	-.1021E+01	-.7540E-01	.4889E-02
21	.1135E+01	.1111E+01	.1020E+01	.3140E-01	.1153E+01	.9793E+00	.1036E+01	.3534E+01	-.1013E+01	-.1047E+00	.1578E-01
22	.1224E+01	.1179E+01	.1015E+01	.4641E-01	.1220E+01	.9713E+00	.1035E+01	.3493E+01	-.1017E+01	.1549E-02	.2611E-01
23	.1298E+01	.1236E+01	.1011E+01	.5808E-01	.1274E+01	.9650E+00	.1033E+01	.3459E+01	-.1078E+01	.1764E+00	.3470E-01
24	.1352E+01	.1276E+01	.1007E+01	.6637E-01	.1311E+01	.9614E+00	.1031E+01	.3431E+01	-.1029E+01	.4655E-01	.4103E-01
25	.1393E+01	.1304E+01	.1004E+01	.7264E-01	.1337E+01	.9603E+00	.1029E+01	.3408E+01	-.9265E+00	-.2094E+00	.4584E-01
26	.1428E+01	.1327E+01	.1001E+01	.7792E-01	.1358E+01	.9607E+00	.1028E+01	.3387E+01	-.9014E+00	-.2754E+00	.4993E-01
27	.1458E+01	.1345E+01	.9984E+00	.8225E-01	.1375E+01	.9622E+00	.1027E+01	.3369E+01	-.9052E+00	-.2374E+00	.5337E-01
28	.1479E+01	.1357E+01	.9963E+00	.8522E-01	.1385E+01	.9642E+00	.1026E+01	.3353E+01	-.9109E+00	-.2052E+00	.5584E-01
29	.1490E+01	.1363E+01	.9946E+00	.8675E-01	.1388E+01	.9664E+00	.1025E+01	.3341E+01	-.9156E+00	-.1829E+00	.5718E-01
30	.1494E+01	.1362E+01	.9934E+00	.8711E-01	.1386E+01	.9687E+00	.1024E+01	.3333E+01	-.9199E+00	-.1649E+00	.5756E-01
31	.1492E+01	.1359E+01	.9925E+00	.8679E-01	.1381E+01	.9708E+00	.1023E+01	.3328E+01	-.9513E+00	-.8832E-01	.5735E-01
32	.1488E+01	.1355E+01	.9918E+00	.8628E-01	.1376E+01	.9724E+00	.1022E+01	.3325E+01	-.9933E+00	-.4121E-02	.5694E-01
33	.1485E+01	.1353E+01	.9913E+00	.8591E-01	.1372E+01	.9731E+00	.1021E+01	.3323E+01	-.1157E+01	.2483E+00	.5661E-01
34	.1485E+01	.1353E+01	.9908E+00	.8585E-01	.1371E+01	.9728E+00	.1021E+01	.3322E+01	-.1340E+01	.4762E+00	.5652E-01
35	.1486E+01	.1355E+01	.9902E+00	.8608E-01	.1372E+01	.9716E+00	.1020E+01	.3321E+01	-.1305E+01	.4114E+00	.5671E-01
36	.1490E+01	.1358E+01	.9893E+00	.8645E-01	.1373E+01	.9705E+00	.1018E+01	.3319E+01	-.1217E+01	.2819E+00	.5714E-01
37	.1495E+01	.1362E+01	.9880E+00	.8688E-01	.1375E+01	.9704E+00	.1017E+01	.3313E+01	-.1388E+01	.4579E+00	.5776E-01
38	.1503E+01	.1366E+01	.9863E+00	.8736E-01	.1376E+01	.9712E+00	.1015E+01	.3304E+01	-.1496E+01	.5442E+00	.5862E-01
39	.1512E+01	.1370E+01	.9841E+00	.8794E-01	.1377E+01	.9732E+00	.1013E+01	.3292E+01	-.1022E+01	.3608E-01	.5973E-01
40	.1524E+01	.1374E+01	.9815E+00	.8860E-01	.1377E+01	.9771E+00	.1011E+01	.3275E+01	-.6667E+00	-.3333E+00	.6108E-01
41	.1536E+01	.1375E+01	.9784E+00	.8922E-01	.1375E+01	.9830E+00	.1009E+01	.3254E+01	-.5360E+00	-.4626E+00	.6248E-01
42	.1546E+01	.1374E+01	.9752E+00	.8948E-01	.1369E+01	.9904E+00	.1007E+01	.3232E+01	-.4368E+00	-.5622E+00	.6362E-01
43	.1548E+01	.1368E+01	.9723E+00	.8878E-01	.1359E+01	.9983E+00	.1005E+01	.3212E+01	-.3881E+00	-.6123E+00	.6391E-01
44	.1537E+01	.1354E+01	.9702E+00	.8634E-01	.1342E+01	.1006E+01	.1003E+01	.3200E+01	-.4091E+00	-.5909E+00	.6264E-01
45	.1507E+01	.1330E+01	.9693E+00	.8136E-01	.1314E+01	.1011E+01	.1000E+01	.3198E+01	-.3955E+00	-.6155E+00	.5913E-01
46	.1454E+01	.1293E+01	.9701E+00	.7321E-01	.1276E+01	.1015E+01	.9981E+00	.3211E+01	-.3799E+00	-.6488E+00	.5294E-01
47	.1378E+01	.1244E+01	.9727E+00	.6166E-01	.1226E+01	.1015E+01	.9957E+00	.3241E+01	-.4277E+00	-.6112E+00	.4411E-01
48	.1285E+01	.1186E+01	.9772E+00	.4715E-01	.1169E+01	.1012E+01	.9938E+00	.3289E+01	-.4145E+00	-.6710E+00	.3329E-01
49	.1186E+01	.1125E+01	.9831E+00	.3086E-01	.1110E+01	.1006E+01	.9927E+00	.3353E+01	-.3975E+00	-.7692E+00	.2167E-01
50	.1092E+01	.1067E+01	.9899E+00	.1469E-01	.1056E+01	.9975E+00	.9927E+00	.3425E+01	-.4262E+00	-.7931E+00	.1069E-01
51	.1014E+01	.1018E+01	.9964E+00	.8363E-03	.1011E+01	.9896E+00	.9939E+00	.3494E+01	-.4558E+00	-.8227E+00	.1648E-02
52	.9602E+00	.9821E+00	.1002E+01	-.8998E-02	.9799E+00	.9848E+00	.9961E+00	.3546E+01	-.4838E+00	-.8637E+00	-.4637E-02
53	.9309E+00	.9609E+00	.1005E+01	-.1422E-01	.9621E+00	.9843E+00	.9985E+00	.3575E+01	-.5168E+00	-.9643E+00	-.8063E-02
54	.9217E+00	.9522E+00	.1007E+01	-.1552E-01	.9556E+00	.9871E+00	.1001E+01	.3582E+01	-.5428E+00	-.1047E+01	-.9126E-02
55	.9260E+00	.9525E+00	.1007E+01	-.1427E-01	.9568E+00	.9913E+00	.1002E+01	.3575E+01	-.5409E+00	-.1055E+01	-.8630E-02
56	.9369E+00	.9579E+00	.1006E+01	-.1190E-01	.9622E+00	.9951E+00	.1002E+01	.3561E+01	-.5396E+00	-.1082E+01	-.7357E-02
57	.9495E+00	.9651E+00	.1005E+01	-.9405E-02	.9689E+00	.9978E+00	.1002E+01	.3546E+01	-.5524E+00	-.1170E+01	-.5894E-02
58	.9607E+00	.9722E+00	.1004E+01	-.7306E-02	.9751E+00	.9994E+00	.1002E+01	.3534E+01	-.6072E+00	-.1347E+01	-.4583E-02
59	.9695E+00	.9780E+00	.1003E+01	-.5756E-02	.9800E+00	.1000E+01	.1001E+01	.3524E+01	-.5042E+00	-.1345E+01	-.3562E-02
60	.9757E+00	.9823E+00	.1002E+01	-.4685E-02	.9835E+00	.1000E+01	.1001E+01	.3518E+01	-.2901E+00	-.1197E+01	-.2829E-02
61	.9802E+00	.9855E+00	.1001E+01	-.3943E-02	.9861E+00	.1000E+01	.1000E+01	.3514E+01	-.1113E+00	-.1072E+01	-.2310E-02
62	.9835E+00	.9878E+00	.1001E+01	-.3384E-02	.9880E+00	.1000E+01	.9998E+00	.3510E+01	.2685E-01	-.9847E+00	-.1927E-02
63	.9861E+00	.9898E+00	.1000E+01	-.2915E-02	.9896E+00	.1000E+01	.9995E+00	.3508E+01	.1306E+00	-.9301E+00	-.1619E-02
64	.9884E+00	.9914E+00	.1000E+01	-.2486E-02	.9910E+00	.1000E+01	.9994E+00	.3506E+01	.2094E+00	-.8998E+00	-.1353E-02
65	.9905E+00	.9929E+00	.1000E+01	-.2082E-02	.9923E+00	.1000E+01	.9992E+00	.3504E+01	.2728E+00	-.8834E+00	-.1113E-02
66	.9923E+00	.9943E+00	.9998E+00	-.1705E-02	.9936E+00	.1000E+01	.9992E+00	.3503E+01	.3244E+00	-.8747E+00	-.8984E-03
67	.9939E+00	.9954E+00	.9997E+00	-.1366E-02	.9947E+00	.1000E+01	.9992E+00	.3502E+01	.3659E+00	-.8692E+00	-.7136E-03
68	.9952E+00	.9964E+00	.9997E+00	-.1083E-02	.9956E+00	.1000E+01	.9992E+00	.3501E+01	.4213E+00	-.7676E+00	-.5653E-03
69	.9961E+00	.9971E+00	.9997E+00	-.8695E-03	.9964E+00	.1000E+01	.9993E+00	.3501E+01	.5827E+00	-.5281E+00	-.4576E-03
70	.9967E+00	.9975E+00	.9997E+00	-.7288E-03	.9969E+00	.1000E+01	.9993E+00	.3500E+01	.8256E+00	-.2240E+00	-.3895E-03
71	.9970E+00	.9977E+00	.9997E+00	-.6548E-03	.9971E+00	.1000E+01	.9994E+00	.3500E+01	.1136E+01	.1901E+00	-.3552E-03
72	.9970E+00	.9978E+00	.9997E+00	-.6284E-03	.9972E+00	.1000E+01	.9994E+00	.3500E+01	.1254E+01	.4948E+00	-.3442E-03
73	.9970E+00	.9978E+00	.9997E+00	-.6284E-03	.9972E+00	.1000E+01	.9994E+00	.3500E+01	.1242E+01	.7365E+00	-.3442E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.2685E+00	.9000E+02	.3823E+01	0.	-.2500E+00	-.6106E-13	0.	.9826E-12	-.1074E+01	.9568E+00
2	.2685E+00	.8600E+02	.3823E+01	-.1275E-05	-.2500E+00	.2217E-09	-.3890E-05	.3282E-12	-.1074E+01	.9568E+00
3	.2685E+00	.8200E+02	.3823E+01	-.9697E-06	-.2500E+00	.1141E-08	-.3005E-05	0.	-.1074E+01	.9556E+00
4	.2685E+00	.7800E+02	.3823E+01	-.9412E-06	-.2500E+00	.4768E-08	-.2890E-05	.3816E-14	-.1074E+01	.9531E+00
5	.2685E+00	.7400E+02	.3823E+01	-.9160E-06	-.2500E+00	.1932E-07	-.2649E-05	-.2302E-02	-.1074E+01	.9496E+00
6	.2788E+00	.7000E+02	.3840E+01	-.8538E-06	-.2500E+00	.7952E-07	-.2111E-05	-.5115E-02	-.1115E+01	.9451E+00

7	.2916E+00	.6600E+02	.3860E+01	-.7806E-06	-.2500E+00	.3396E-06	-.1353E-05	-.5683E-02	-.1166E+01	.9402E+00
8	.3055E+00	.6200E+02	.3879E+01	-.6998E-06	-.2500E+00	.1520E-05	-.4278E-06	-.5922E-02	-.1222E+01	.9350E+00
9	.3208E+00	.5800E+02	.3899E+01	-.6136E-06	-.2501E+00	.7165E-05	.5731E-06	-.6182E-02	-.1283E+01	.9297E+00
10	.3378E+00	.5400E+02	.3918E+01	-.5255E-06	-.2503E+00	.3573E-04	.1519E-05	-.7212E-02	-.1350E+01	.9244E+00
11	.3575E+00	.5001E+02	.3941E+01	-.4389E-06	-.2516E+00	.1860E-03	.2285E-05	-.7342E-02	-.1421E+01	.9195E+00
12	.3886E+00	.4605E+02	.3959E+01	-.3491E-06	-.2585E+00	.1004E-02	.2693E-05	-.6774E-02	-.1503E+01	.9153E+00
13	.4590E+00	.4227E+02	.3976E+01	-.2492E-06	-.2898E+00	.4937E-02	.2535E-05	-.7726E-02	-.1584E+01	.9127E+00
14	.5649E+00	.3915E+02	.3993E+01	-.1672E-06	-.3392E+00	.4005E-02	.2031E-05	-.7539E-02	-.1665E+01	.9128E+00
15	.6888E+00	.3638E+02	.4003E+01	-.1146E-06	-.3990E+00	.9752E-02	.1443E-05	-.1087E-01	-.1726E+01	.9170E+00
16	.8205E+00	.3414E+02	.4024E+01	-.8992E-07	-.4665E+00	.5377E-02	.8690E-06	-.2932E-01	-.1759E+01	.9263E+00
17	.9011E+00	.3209E+02	.4074E+01	-.9754E-07	-.5024E+00	.4347E-02	.3501E-06	-.5798E-01	-.1793E+01	.9409E+00
18	.9992E+00	.3016E+02	.4153E+01	-.1316E-06	-.5415E+00	.9061E-02	-.1927E-06	-.8882E-01	-.1844E+01	.9598E+00
19	.1177E+01	.2840E+02	.4252E+01	-.1803E-06	-.6222E+00	.2394E-01	-.6841E-06	-.1082E+00	-.1888E+01	.9811E+00
20	.1418E+01	.2695E+02	.4337E+01	-.2324E-06	-.7862E+00	.5714E-01	-.1061E-05	-.1078E+00	-.1796E+01	.1002E+01
21	.1948E+01	.2587E+02	.4404E+01	-.2410E-06	-.1033E+01	.9841E-01	-.1146E-05	-.1350E+00	-.1874E+01	.1022E+01
22	.2373E+01	.2503E+02	.4475E+01	-.2569E-06	-.1285E+01	.1662E+00	-.1240E-05	.8768E-01	-.1857E+01	.1038E+01
23	.2957E+01	.2430E+02	.4330E+01	-.2477E-06	-.1529E+01	.3749E+00	-.1190E-05	.4451E+00	-.2043E+01	.1050E+01
24	.3424E+01	.2365E+02	.4174E+01	-.2379E-06	-.1761E+01	.6689E+00	-.1160E-05	.2176E+00	-.2027E+01	.1060E+01
25	.3975E+01	.2312E+02	.4203E+01	-.2059E-06	-.1962E+01	.8702E+00	-.1045E-05	-.2477E+00	-.1916E+01	.1068E+01
26	.4637E+01	.2268E+02	.4299E+01	-.1568E-06	-.2186E+01	.1015E+01	-.8600E-06	-.3778E+00	-.1945E+01	.1076E+01
27	.5217E+01	.2228E+02	.4366E+01	-.1076E-06	-.2391E+01	.1150E+01	-.6781E-06	-.2998E+00	-.2038E+01	.1083E+01
28	.5683E+01	.2190E+02	.4414E+01	-.6464E-07	-.2562E+01	.1263E+01	-.5240E-06	-.2297E+00	-.2105E+01	.1090E+01
29	.6051E+01	.2154E+02	.4447E+01	-.2966E-07	-.2695E+01	.1357E+01	-.4035E-06	-.1809E+00	-.2154E+01	.1094E+01
30	.6316E+01	.2119E+02	.4474E+01	-.1785E-08	-.2788E+01	.1432E+01	-.3112E-06	-.1422E+00	-.2193E+01	.1096E+01
31	.6447E+01	.2084E+02	.4492E+01	.2088E-07	-.2832E+01	.1496E+01	-.2412E-06	.2091E-01	-.2288E+01	.1098E+01
32	.6392E+01	.2048E+02	.4467E+01	.4031E-07	-.2827E+01	.1561E+01	-.1887E-06	.1980E+00	-.2370E+01	.1098E+01
33	.6114E+01	.2010E+02	.4430E+01	.5694E-07	-.2735E+01	.1605E+01	-.1563E-06	.7130E+00	-.2654E+01	.1098E+01
34	.5329E+01	.1961E+02	.4234E+01	.7434E-07	-.2570E+01	.1659E+01	-.1557E-06	.1077E+01	-.2769E+01	.1098E+01
35	.4568E+01	.1906E+02	.4026E+01	.8904E-07	-.2329E+01	.1755E+01	-.1758E-06	.8789E+00	-.2624E+01	.1097E+01
36	.4004E+01	.1846E+02	.3849E+01	.9995E-07	-.2071E+01	.1925E+01	-.2019E-06	.6231E+00	-.2513E+01	.1097E+01
37	.3275E+01	.1781E+02	.3715E+01	.1201E-06	-.1672E+01	.1916E+01	-.2401E-06	.8554E+00	-.2939E+01	.1098E+01
38	.2802E+01	.1667E+02	.3327E+01	.1397E-06	-.1435E+01	.2298E+01	-.2512E-06	.8665E+00	-.3340E+01	.1100E+01
39	.2427E+01	.1542E+02	.3096E+01	.1632E-06	-.1137E+01	.2586E+01	-.2300E-06	.2788E+00	-.2768E+01	.1104E+01
40	.2063E+01	.1439E+02	.3097E+01	.1973E-06	-.8781E+00	.2546E+01	-.1750E-06	-.6506E-01	-.2161E+01	.1109E+01
41	.1839E+01	.1333E+02	.3159E+01	.2292E-06	-.7500E+00	.2560E+01	-.6928E-07	-.1486E+00	-.1945E+01	.1117E+01
42	.1635E+01	.1227E+02	.3258E+01	.2662E-06	-.6882E+00	.2522E+01	.7122E-07	-.2146E+00	-.1589E+01	.1125E+01
43	.1538E+01	.1139E+02	.3422E+01	.2892E-06	-.6688E+00	.2462E+01	.2273E-06	-.2556E+00	-.1359E+01	.1132E+01
44	.1448E+01	.1050E+02	.3591E+01	.3100E-06	-.6836E+00	.2395E+01	.3855E-06	-.2407E+00	-.1275E+01	.1135E+01
45	.1352E+01	.9625E+01	.3755E+01	.3298E-06	-.7205E+00	.2300E+01	.5408E-06	-.2714E+00	-.1010E+01	.1133E+01
46	.1334E+01	.9009E+01	.3992E+01	.3242E-06	-.7633E+00	.2260E+01	.6403E-06	-.3118E+00	-.8243E+00	.1125E+01
47	.1305E+01	.8389E+01	.4222E+01	.3099E-06	-.8170E+00	.2194E+01	.6976E-06	-.3000E+00	-.7912E+00	.1108E+01
48	.1259E+01	.7796E+01	.4452E+01	.2842E-06	-.8738E+00	.2107E+01	.7045E-06	-.3504E+00	-.5963E+00	.1084E+01
49	.1225E+01	.7442E+01	.4779E+01	.2379E-06	-.9114E+00	.2049E+01	.6359E-06	-.4145E+00	-.4123E+00	.1054E+01
50	.1166E+01	.7123E+01	.5129E+01	.1781E-06	-.9370E+00	.1966E+01	.5088E-06	-.4235E+00	-.3553E+00	.1024E+01
51	.1093E+01	.6832E+01	.5505E+01	.1033E-06	-.9532E+00	.1874E+01	.3223E-06	-.4289E+00	-.3033E+00	.9965E+00
52	.1009E+01	.6568E+01	.5914E+01	.1618E-07	-.9565E+00	.1773E+01	.8644E-07	-.4340E+00	-.2502E+00	.9777E+00
53	.9139E+00	.6336E+01	.6366E+01	-.8017E-07	-.9420E+00	.1664E+01	-.1869E-06	-.4608E+00	-.1564E+00	.9687E+00
54	.8243E+00	.6225E+01	.6922E+01	-.1805E-06	-.8893E+00	.1560E+01	-.4802E-06	-.4787E+00	-.8713E-01	.9680E+00
55	.7306E+00	.6125E+01	.7527E+01	-.2831E-06	-.8232E+00	.1456E+01	-.7853E-06	-.4589E+00	-.7588E-01	.9722E+00
56	.6449E+00	.6018E+01	.8178E+01	-.3850E-06	-.7513E+00	.1357E+01	-.1092E-05	-.4481E+00	-.4937E-01	.9781E+00
57	.5677E+00	.5971E+01	.8917E+01	-.4877E-06	-.6640E+00	.1271E+01	-.1405E-05	-.4610E+00	.2697E-01	.9838E+00
58	.5117E+00	.6113E+01	.9802E+01	-.5814E-06	-.5549E+00	.1220E+01	-.1697E-05	-.5110E+00	.2012E+00	.9882E+00
59	.4602E+00	.6758E+01	.1091E+02	-.6836E-06	-.3721E+00	.1145E+01	-.2020E-05	-.5110E+00	.3355E+00	.9913E+00
60	.4226E+00	.7571E+01	.1202E+02	-.7841E-06	-.2097E+00	.1082E+01	-.2349E-05	-.4566E+00	.3408E+00	.9933E+00
61	.3928E+00	.8371E+01	.1307E+02	-.8880E-06	-.8080E-01	.1025E+01	-.2703E-05	-.4078E+00	.3137E+00	.9946E+00
62	.3596E+00	.9168E+01	.1410E+02	-.1016E-05	.2403E-01	.9578E+00	-.3148E-05	-.3684E+00	.2822E+00	.9956E+00
63	.3244E+00	.9940E+01	.1512E+02	-.1164E-05	.1041E+00	.8851E+00	-.3680E-05	-.3377E+00	.2450E+00	.9963E+00
64	.2877E+00	.1068E+02	.1618E+02	-.1325E-05	.1613E+00	.8104E+00	-.4281E-05	-.3128E+00	.2126E+00	.9970E+00
65	.2504E+00	.1142E+02	.1730E+02	-.1489E-05	.1997E+00	.7351E+00	-.4921E-05	-.2899E+00	.1863E+00	.9975E+00
66	.2145E+00	.1217E+02	.1850E+02	-.1633E-05	.2219E+00	.6628E+00	-.5526E-05	-.2682E+00	.1655E+00	.9980E+00
67	.1830E+00	.1296E+02	.1980E+02	-.1721E-05	.2306E+00	.5943E+00	-.5969E-05	-.2494E+00	.1509E+00	.9984E+00
68	.1538E+00	.1382E+02	.2122E+02	-.1767E-05	.2289E+00	.5335E+00	-.6277E-05	-.2032E+00	.1983E+00	.9988E+00
69	.1331E+00	.1554E+02	.2244E+02	-.1700E-05	.2380E+00	.4614E+00	-.6200E-05	-.1352E+00	.2973E+00	.9990E+00
70	.1179E+00	.1828E+02	.2325E+02	-.1608E-05	.2576E+00	.3707E+00	-.5954E-05	-.5823E-01	.3739E+00	.9991E+00
71	.1120E+00	.2188E+02	.2343E+02	-.1473E-05	.2985E+00	.2693E+00	-.5511E-05	.5327E-01	.4234E+00	.9992E+00

72	.1115E+00	.2584E+02	.2230E+02	-.2099E-05	.3272E+00	.1151E+00	-.7906E-05	.1594E+00	.3969E+00	.9992E+00	
73	.1373E+00	.2900E+02	.2057E+02	0.	.3621E+00	-.1560E-13	0.	.2794E+00	.3790E+00	.9992E+00	

SECOND INDEX= 20

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.8998E+00	.9529E+00	.1005E+01	-.2137E-01	.9481E+00	.9626E+00	.9907E+00	.3619E+01	-.1005E+01	.2137E-01	-.1169E-01
2	.8998E+00	.9529E+00	.1005E+01	-.2137E-01	.9481E+00	.9626E+00	.9907E+00	.3619E+01	-.1005E+01	.2137E-01	-.1169E-01
3	.8966E+00	.9510E+00	.1004E+01	-.2208E-01	.9456E+00	.9619E+00	.9901E+00	.3622E+01	-.1004E+01	.2208E-01	-.1206E-01
4	.8899E+00	.9468E+00	.1004E+01	-.2365E-01	.9403E+00	.9607E+00	.9888E+00	.3626E+01	-.1004E+01	.2365E-01	-.1284E-01
5	.8801E+00	.9403E+00	.1004E+01	-.2600E-01	.9325E+00	.9592E+00	.9871E+00	.3632E+01	-.1004E+01	.1966E-01	-.1399E-01
6	.8682E+00	.9322E+00	.1003E+01	-.2894E-01	.9232E+00	.9578E+00	.9854E+00	.3640E+01	-.1003E+01	.1536E-01	-.1537E-01
7	.8553E+00	.9232E+00	.1003E+01	-.3225E-01	.9132E+00	.9567E+00	.9841E+00	.3650E+01	-.1003E+01	.1785E-01	-.1687E-01
8	.8422E+00	.9135E+00	.1004E+01	-.3574E-01	.9035E+00	.9559E+00	.9835E+00	.3661E+01	-.1004E+01	.2140E-01	-.1840E-01
9	.8289E+00	.9032E+00	.1005E+01	-.3934E-01	.8942E+00	.9559E+00	.9840E+00	.3674E+01	-.1005E+01	.2505E-01	-.1996E-01
10	.8151E+00	.8920E+00	.1007E+01	-.4305E-01	.8852E+00	.9566E+00	.9859E+00	.3689E+01	-.1007E+01	.2840E-01	-.2157E-01
11	.8002E+00	.8793E+00	.1010E+01	-.4692E-01	.8761E+00	.9581E+00	.9892E+00	.3708E+01	-.1010E+01	.3238E-01	-.2330E-01
12	.7841E+00	.8650E+00	.1013E+01	-.5091E-01	.8665E+00	.9606E+00	.9938E+00	.3730E+01	-.1014E+01	.3712E-01	-.2517E-01
13	.7675E+00	.8497E+00	.1018E+01	-.5476E-01	.8568E+00	.9640E+00	.9996E+00	.3754E+01	-.1020E+01	.4052E-01	-.2711E-01
14	.7526E+00	.8352E+00	.1023E+01	-.5784E-01	.8483E+00	.9684E+00	.1006E+01	.3777E+01	-.1024E+01	.4444E-01	-.2885E-01
15	.7430E+00	.8245E+00	.1027E+01	-.5915E-01	.8436E+00	.9736E+00	.1013E+01	.3794E+01	-.1031E+01	.4639E-01	-.2997E-01
16	.7437E+00	.8213E+00	.1031E+01	-.5745E-01	.8460E+00	.9796E+00	.1020E+01	.3798E+01	-.1032E+01	.3514E-01	-.2989E-01
17	.7594E+00	.8299E+00	.1033E+01	-.5159E-01	.8593E+00	.9859E+00	.1025E+01	.3785E+01	-.1034E+01	.1149E-01	-.2805E-01
18	.7945E+00	.8538E+00	.1034E+01	-.4101E-01	.8869E+00	.9912E+00	.1030E+01	.3754E+01	-.1035E+01	-.1642E-01	-.2397E-01
19	.8504E+00	.8948E+00	.1032E+01	-.2611E-01	.9309E+00	.9937E+00	.1033E+01	.3708E+01	-.1031E+01	-.2894E-01	-.1744E-01
20	.9252E+00	.9516E+00	.1029E+01	-.8434E-02	.9898E+00	.9918E+00	.1035E+01	.3654E+01	-.1021E+01	-.5317E-01	-.8726E-02
21	.1012E+01	.1019E+01	.1026E+01	.9903E-02	.1059E+01	.9856E+00	.1035E+01	.3602E+01	-.1008E+01	-.9113E-01	.1444E-02
22	.1103E+01	.1090E+01	.1021E+01	.2691E-01	.1129E+01	.9773E+00	.1034E+01	.3554E+01	-.1024E+01	.7633E-02	.1197E-01
23	.1185E+01	.1154E+01	.1016E+01	.4115E-01	.1192E+01	.9694E+00	.1032E+01	.3514E+01	-.1092E+01	.1590E+00	.2159E-01
24	.1254E+01	.1207E+01	.1012E+01	.5237E-01	.1242E+01	.9639E+00	.1030E+01	.3479E+01	-.1030E+01	.2998E-01	.2959E-01
25	.1313E+01	.1250E+01	.1008E+01	.6183E-01	.1284E+01	.9606E+00	.1029E+01	.3449E+01	-.8881E+00	-.2478E+00	.3655E-01
26	.1370E+01	.1291E+01	.1004E+01	.7042E-01	.1322E+01	.9584E+00	.1028E+01	.3421E+01	-.8617E+00	-.3129E+00	.4311E-01
27	.1420E+01	.1325E+01	.1001E+01	.7774E-01	.1356E+01	.9570E+00	.1027E+01	.3396E+01	-.8781E+00	-.2616E+00	.4895E-01
28	.1458E+01	.1351E+01	.9987E+00	.8305E-01	.1379E+01	.9567E+00	.1026E+01	.3377E+01	-.8938E+00	-.2203E+00	.5337E-01
29	.1481E+01	.1365E+01	.9965E+00	.8617E-01	.1392E+01	.9576E+00	.1025E+01	.3362E+01	-.9048E+00	-.1936E+00	.5608E-01
30	.1492E+01	.1371E+01	.9949E+00	.8752E-01	.1395E+01	.9592E+00	.1024E+01	.3351E+01	-.9143E+00	-.1712E+00	.5732E-01
31	.1494E+01	.1370E+01	.9938E+00	.8777E-01	.1393E+01	.9610E+00	.1023E+01	.3344E+01	-.9532E+00	-.8467E-01	.5760E-01
32	.1493E+01	.1368E+01	.9930E+00	.8753E-01	.1390E+01	.9625E+00	.1022E+01	.3340E+01	-.1000E+01	.6229E-02	.5745E-01
33	.1491E+01	.1366E+01	.9924E+00	.8722E-01	.1386E+01	.9633E+00	.1021E+01	.3338E+01	-.1184E+01	.2838E+00	.5722E-01
34	.1490E+01	.1366E+01	.9919E+00	.8708E-01	.1385E+01	.9629E+00	.1020E+01	.3337E+01	-.1358E+01	.4914E+00	.5714E-01
35	.1491E+01	.1368E+01	.9912E+00	.8712E-01	.1385E+01	.9619E+00	.1019E+01	.3335E+01	-.1285E+01	.3699E+00	.5727E-01
36	.1494E+01	.1370E+01	.9902E+00	.8726E-01	.1386E+01	.9611E+00	.1018E+01	.3332E+01	-.1168E+01	.2086E+00	.5760E-01
37	.1498E+01	.1373E+01	.9888E+00	.8741E-01	.1386E+01	.9611E+00	.1016E+01	.3326E+01	-.1309E+01	.3527E+00	.5811E-01
38	.1503E+01	.1376E+01	.9869E+00	.8760E-01	.1386E+01	.9622E+00	.1014E+01	.3317E+01	-.1349E+01	.3771E+00	.5885E-01
39	.1513E+01	.1379E+01	.9846E+00	.8790E-01	.1385E+01	.9646E+00	.1012E+01	.3303E+01	-.8660E+00	-.1267E+00	.5986E-01
40	.1524E+01	.1382E+01	.9818E+00	.8835E-01	.1384E+01	.9687E+00	.1010E+01	.3286E+01	-.6095E+00	-.3884E+00	.6115E-01
41	.1537E+01	.1384E+01	.9787E+00	.8890E-01	.1382E+01	.9750E+00	.1008E+01	.3264E+01	-.5741E+00	-.4214E+00	.6259E-01
42	.1548E+01	.1383E+01	.9754E+00	.8922E-01	.1376E+01	.9831E+00	.1006E+01	.3240E+01	-.5223E+00	-.4747E+00	.6385E-01
43	.1552E+01	.1376E+01	.9722E+00	.8872E-01	.1366E+01	.9922E+00	.1004E+01	.3218E+01	-.4940E+00	-.5059E+00	.6436E-01
44	.1544E+01	.1362E+01	.9698E+00	.8662E-01	.1348E+01	.1001E+01	.1002E+01	.3201E+01	-.5531E+00	-.4447E+00	.6338E-01
45	.1516E+01	.1337E+01	.9685E+00	.8203E-01	.1320E+01	.1009E+01	.9994E+00	.3195E+01	-.5240E+00	-.4859E+00	.6019E-01
46	.1465E+01	.1300E+01	.9689E+00	.7424E-01	.1281E+01	.1015E+01	.9972E+00	.3204E+01	-.4887E+00	-.5437E+00	.5425E-01
47	.1391E+01	.1251E+01	.9712E+00	.6293E-01	.1231E+01	.1017E+01	.9950E+00	.3230E+01	-.5521E+00	-.4852E+00	.4555E-01
48	.1297E+01	.1192E+01	.9756E+00	.4843E-01	.1173E+01	.1015E+01	.9932E+00	.3277E+01	-.5224E+00	-.5660E+00	.3466E-01
49	.1195E+01	.1129E+01	.9818E+00	.3191E-01	.1113E+01	.1009E+01	.9922E+00	.3341E+01	-.4975E+00	-.6892E+00	.2276E-01
50	.1098E+01	.1069E+01	.9888E+00	.1535E-01	.1057E+01	.1000E+01	.9923E+00	.3415E+01	-.5374E+00	-.7009E+00	.1141E-01
51	.1018E+01	.1019E+01	.9957E+00	.1170E-02	.1012E+01	.9919E+00	.9937E+00	.3486E+01	-.5773E+00	-.7214E+00	.2067E-02
52	.9629E+00	.9827E+00	.1001E+01	-.8687E-02	.9803E+00	.9867E+00	.9961E+00	.3541E+01	-.6156E+00	-.7572E+00	-.4326E-02
53	.9346E+00	.9623E+00	.1005E+01	-.1356E-01	.9635E+00	.9862E+00	.9987E+00	.3569E+01	-.6674E+00	-.9033E+00	-.7631E-02
54	.9277E+00	.9553E+00	.1006E+01	-.1428E-01	.9587E+00	.9891E+00	.1001E+01	.3575E+01	-.7328E+00	-.1028E+01	-.8432E-02
55	.9343E+00	.9573E+00	.1006E+01	-.1249E-01	.9616E+00	.9932E+00	.1002E+01	.3565E+01	-.7582E+00	-.1039E+01	-.7657E-02
56	.9470E+00	.9641E+00	.1005E+01	-.9770E-02	.9683E+00	.9967E+00	.1003E+01	.3551E+01	-.7945E+00	-.1091E+01	-.6187E-02
57	.9602E+00	.9721E+00	.1004E+01	-.7157E-02	.9757E+00	.9989E+00	.1002E+01	.3536E+01	-.8786E+00	-.1256E+01	-.4642E-02
58	.9713E+00	.9793E+00	.1003E+01	-.5110E-02	.9820E+00	.1000E+01	.1002E+01	.3525E+01	-.1092E+01	-.1622E+01	-.3351E-02
59	.9793E+00	.9847E+00	.1002E+01	-.3708E-02	.9866E+00	.1001E+01	.1001E+01	.3517E+01	-.1006E+01	-.1673E+01	-.2416E-02
60	.9846E+00	.9885E+00	.1001E+01	-.2814E-02	.9896E+00	.1001E+01	.1001E+01	.3511E+01	-.7072E+00	-.1463E+01	-.1792E-02

61	.9882E+00	.9910E+00	.1001E+01	-.2233E-02	.9917E+00	.1001E+01	.1000E+01	.3508E+01	-.4566E+00	-.1281E+01	-.1377E-02
62	.9907E+00	.9929E+00	.1000E+01	-.1817E-02	.9931E+00	.1001E+01	.1000E+01	.3506E+01	-.2628E+00	-.1149E+01	-.1082E-02
63	.9927E+00	.9943E+00	.1000E+01	-.1492E-02	.9943E+00	.1001E+01	.9998E+00	.3504E+01	-.1182E+00	-.1059E+01	-.8556E-03
64	.9942E+00	.9955E+00	.1000E+01	-.1225E-02	.9952E+00	.1001E+01	.9997E+00	.3502E+01	-.1206E-01	-.1005E+01	-.6755E-03
65	.9954E+00	.9964E+00	.9999E+00	-.1000E-02	.9960E+00	.1000E+01	.9995E+00	.3501E+01	.6934E-01	-.9748E+00	-.5310E-03
66	.9964E+00	.9972E+00	.9998E+00	-.8077E-03	.9967E+00	.1000E+01	.9995E+00	.3501E+01	.1340E+00	-.9572E+00	-.4156E-03
67	.9972E+00	.9978E+00	.9998E+00	-.6422E-03	.9973E+00	.1000E+01	.9995E+00	.3500E+01	.1860E+00	-.9474E+00	-.3246E-03
68	.9978E+00	.9983E+00	.9998E+00	-.5054E-03	.9978E+00	.1000E+01	.9995E+00	.3500E+01	.2381E+00	-.8790E+00	-.2557E-03
69	.9982E+00	.9986E+00	.9998E+00	-.4012E-03	.9982E+00	.1000E+01	.9996E+00	.3500E+01	.3828E+00	-.6941E+00	-.2071E-03
70	.9985E+00	.9988E+00	.9998E+00	-.3310E-03	.9984E+00	.1000E+01	.9996E+00	.3500E+01	.6200E+00	-.4299E+00	-.1764E-03
71	.9986E+00	.9989E+00	.9998E+00	-.2922E-03	.9986E+00	.1000E+01	.9996E+00	.3500E+01	.9764E+00	-.2771E-01	-.1605E-03
72	.9987E+00	.9990E+00	.9998E+00	-.2769E-03	.9986E+00	.1000E+01	.9996E+00	.3500E+01	.1228E+01	.3547E+00	-.1545E-03
73	.9987E+00	.9990E+00	.9998E+00	-.2768E-03	.9986E+00	.1000E+01	.9996E+00	.3500E+01	.1203E+01	.6690E+00	-.1544E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.2946E+00	.9000E+02	.2915E+01	0.	-.2500E+00	-.6698E-13	0.	.3071E-11	-.1178E+01	.9442E+00
2	.2946E+00	.8600E+02	.2915E+01	.4982E-06	-.2500E+00	.7568E-09	.2372E-05	.1013E-11	-.1178E+01	.9442E+00
3	.2946E+00	.8200E+02	.2915E+01	.4247E-06	-.2500E+00	.3395E-08	.1949E-05	-.6280E-14	-.1178E+01	.9428E+00
4	.2946E+00	.7800E+02	.2915E+01	.4804E-06	-.2500E+00	.1368E-07	.2144E-05	-.2093E-14	-.1178E+01	.9399E+00
5	.2946E+00	.7400E+02	.2915E+01	.5432E-06	-.2500E+00	.5476E-07	.2484E-05	-.7444E-02	-.1178E+01	.9359E+00
6	.3056E+00	.7000E+02	.2965E+01	.5744E-06	-.2500E+00	.2246E-06	.2857E-05	-.1652E-01	-.1223E+01	.9313E+00
7	.3193E+00	.6600E+02	.3023E+01	.5693E-06	-.2500E+00	.9580E-06	.3264E-05	-.1833E-01	-.1277E+01	.9265E+00
8	.3342E+00	.6200E+02	.3080E+01	.5145E-06	-.2500E+00	.4286E-05	.3621E-05	-.1909E-01	-.1337E+01	.9220E+00
9	.3505E+00	.5800E+02	.3137E+01	.4009E-06	-.2501E+00	.2020E-04	.3822E-05	-.1992E-01	-.1402E+01	.9177E+00
10	.3686E+00	.5400E+02	.3194E+01	.2303E-06	-.2503E+00	.1006E-03	.3774E-05	-.2143E-01	-.1473E+01	.9138E+00
11	.3894E+00	.5001E+02	.3253E+01	.1717E-07	-.2514E+00	.5270E-03	.3405E-05	-.2230E-01	-.1549E+01	.9101E+00
12	.4219E+00	.4605E+02	.3308E+01	-.2081E-06	-.2578E+00	.2867E-02	.2672E-05	-.2225E-01	-.1636E+01	.9065E+00
13	.4987E+00	.4225E+02	.3359E+01	-.3776E-06	-.2892E+00	.1457E-01	.1602E-05	-.2415E-01	-.1723E+01	.9032E+00
14	.6129E+00	.3914E+02	.3405E+01	-.4618E-06	-.3387E+00	.1151E-01	.5944E-06	-.2373E-01	-.1809E+01	.9011E+00
15	.7489E+00	.3635E+02	.3436E+01	-.4839E-06	-.3988E+00	.2880E-01	-.1811E-06	-.2345E-01	-.1876E+01	.9012E+00
16	.8941E+00	.3413E+02	.3468E+01	-.4727E-06	-.4683E+00	.1552E-01	-.7366E-06	-.4127E-01	-.1908E+01	.9054E+00
17	.9760E+00	.3208E+02	.3529E+01	-.4800E-06	-.5017E+00	.1160E-01	-.1207E-05	-.7542E-01	-.1944E+01	.9151E+00
18	.1074E+01	.3014E+02	.3622E+01	-.4769E-06	-.5367E+00	.2221E-01	-.1577E-05	-.1110E+00	-.1997E+01	.9305E+00
19	.1253E+01	.2836E+02	.3735E+01	-.4547E-06	-.6092E+00	.5929E-01	-.1781E-05	-.1092E+00	-.2047E+01	.9505E+00
20	.1522E+01	.2688E+02	.3797E+01	-.4283E-06	-.7653E+00	.1522E+00	-.1844E-05	-.1168E+00	-.1965E+01	.9723E+00
21	.2092E+01	.2578E+02	.3889E+01	-.3605E-06	-.1003E+01	.2292E+00	-.1624E-05	-.1609E+00	-.2049E+01	.9932E+00
22	.2528E+01	.2492E+02	.3950E+01	-.3409E-06	-.1229E+01	.3393E+00	-.1556E-05	.6953E-01	-.2076E+01	.1012E+01
23	.3137E+01	.2414E+02	.3834E+01	-.3050E-06	-.1431E+01	.5772E+00	-.1421E-05	.4137E+00	-.2360E+01	.1027E+01
24	.3729E+01	.2341E+02	.3687E+01	-.2728E-06	-.1644E+01	.9386E+00	-.1296E-05	.1811E+00	-.2372E+01	.1039E+01
25	.4392E+01	.2287E+02	.3737E+01	-.2305E-06	-.1852E+01	.1168E+01	-.1127E-05	-.3618E+00	-.2144E+01	.1050E+01
26	.5174E+01	.2244E+02	.3851E+01	-.1796E-06	-.2111E+01	.1312E+01	-.9218E-06	-.4983E+00	-.2141E+01	.1061E+01
27	.5838E+01	.2204E+02	.3929E+01	-.1348E-06	-.2348E+01	.1421E+01	-.7479E-06	-.3805E+00	-.2256E+01	.1071E+01
28	.6344E+01	.2166E+02	.3982E+01	-.9780E-07	-.2544E+01	.1490E+01	-.6105E-06	-.2811E+00	-.2329E+01	.1079E+01
29	.6701E+01	.2130E+02	.4018E+01	-.6808E-07	-.2689E+01	.1524E+01	-.5050E-06	-.2164E+00	-.2370E+01	.1085E+01
30	.6910E+01	.2096E+02	.4046E+01	-.4396E-07	-.2776E+01	.1533E+01	-.4252E-06	-.1639E+00	-.2399E+01	.1088E+01
31	.6943E+01	.2061E+02	.4065E+01	-.2379E-07	-.2797E+01	.1532E+01	-.3653E-06	.3548E-01	-.2502E+01	.1090E+01
32	.6743E+01	.2024E+02	.4036E+01	-.6220E-08	-.2749E+01	.1534E+01	-.3225E-06	.2415E+00	-.2588E+01	.1091E+01
33	.6275E+01	.1984E+02	.3994E+01	.8659E-08	-.2590E+01	.1526E+01	-.3017E-06	.8543E+00	-.2927E+01	.1091E+01
34	.5265E+01	.1930E+02	.3764E+01	.2169E-07	-.2320E+01	.1541E+01	-.3268E-06	.1206E+01	-.3070E+01	.1091E+01
35	.4503E+01	.1868E+02	.3536E+01	.3186E-07	-.2013E+01	.1709E+01	-.3618E-06	.9000E+00	-.3001E+01	.1090E+01
36	.4060E+01	.1797E+02	.3364E+01	.3984E-07	-.1751E+01	.1959E+01	-.3799E-06	.5877E+00	-.2976E+01	.1090E+01
37	.3324E+01	.1721E+02	.3246E+01	.5624E-07	-.1379E+01	.1919E+01	-.4166E-06	.8151E+00	-.3544E+01	.1091E+01
38	.2952E+01	.1584E+02	.2874E+01	.7584E-07	-.1149E+01	.2334E+01	-.3838E-06	.8072E+00	-.4208E+01	.1093E+01
39	.2609E+01	.1436E+02	.2699E+01	.1024E-06	-.8909E+00	.2610E+01	-.3132E-06	.1892E+00	-.3483E+01	.1097E+01
40	.2247E+01	.1317E+02	.2729E+01	.1361E-06	-.7485E+00	.2548E+01	-.2115E-06	-.9303E-01	-.2686E+01	.1103E+01
41	.1999E+01	.1197E+02	.2782E+01	.1650E-06	-.7180E+00	.2516E+01	-.8036E-07	-.1116E+00	-.2394E+01	.1110E+01
42	.1771E+01	.1077E+02	.2840E+01	.1883E-06	-.7242E+00	.2442E+01	.4982E-07	-.1658E+00	-.1886E+01	.1119E+01
43	.1693E+01	.9839E+01	.2969E+01	.1871E-06	-.7606E+00	.2407E+01	.1514E-06	-.2051E+00	-.1577E+01	.1127E+01
44	.1624E+01	.8910E+01	.3083E+01	.1744E-06	-.8260E+00	.2369E+01	.2124E-06	-.1630E+00	-.1499E+01	.1133E+01
45	.1544E+01	.7993E+01	.3170E+01	.1542E-06	-.8948E+00	.2303E+01	.2371E-06	-.2140E+00	-.1175E+01	.1134E+01
46	.1555E+01	.7389E+01	.3360E+01	.1196E-06	-.9782E+00	.2298E+01	.2150E-06	-.2777E+00	-.9378E+00	.1127E+01
47	.1564E+01	.6787E+01	.3527E+01	.8293E-07	-.1079E+01	.2278E+01	.1666E-06	-.2504E+00	-.9207E+00	.1112E+01
48	.1533E+01	.6211E+01	.3680E+01	.4573E-07	-.1167E+01	.2204E+01	.9771E-07	-.3216E+00	-.7065E+00	.1089E+01
49	.1511E+01	.5866E+01	.3947E+01	.5441E-08	-.1247E+01	.2148E+01	.6710E-08	-.4107E+00	-.5044E+00	.1059E+01
50	.1462E+01	.5544E+01	.4224E+01	-.3689E-07	-.1318E+01	.2068E+01	-.1015E-06	-.4156E+00	-.4574E+00	.1027E+01

51	.1390E+01	.5240E+01	.4515E+01	-.8137E-07	-.1374E+01	.1967E+01	-.2246E-06	-.4193E+00	-.4115E+00	.9992E+00
52	.1298E+01	.4952E+01	.4827E+01	-.1277E-06	-.1412E+01	.1848E+01	-.3592E-06	-.4253E+00	-.3629E+00	.9799E+00
53	.1172E+01	.4681E+01	.5170E+01	-.1782E-06	-.1405E+01	.1690E+01	-.5101E-06	-.4827E+00	-.2534E+00	.9711E+00
54	.1048E+01	.4519E+01	.5651E+01	-.2291E-06	-.1352E+01	.1535E+01	-.6652E-06	-.5263E+00	-.1780E+00	.9711E+00
55	.9196E+00	.4341E+01	.6174E+01	-.2829E-06	-.1279E+01	.1382E+01	-.8302E-06	-.5063E+00	-.1720E+00	.9760E+00
56	.7938E+00	.4145E+01	.6752E+01	-.3416E-06	-.1178E+01	.1231E+01	-.1011E-05	-.5069E+00	-.1441E+00	.9822E+00
57	.6767E+00	.3978E+01	.7451E+01	-.4098E-06	-.1050E+01	.1102E+01	-.1223E-05	-.5566E+00	-.6056E-01	.9877E+00
58	.5968E+00	.3966E+01	.8397E+01	-.4740E-06	-.9104E+00	.1049E+01	-.1427E-05	-.6945E+00	.1445E+00	.9918E+00
59	.5109E+00	.4462E+01	.9779E+01	-.5713E-06	-.6561E+00	.9929E+00	-.1738E-05	-.7156E+00	.3042E+00	.9945E+00
60	.4544E+00	.5157E+01	.1120E+02	-.6724E-06	-.4528E+00	.9540E+00	-.2070E-05	-.6280E+00	.3196E+00	.9961E+00
61	.4154E+00	.5869E+01	.1254E+02	-.7752E-06	-.3021E+00	.9201E+00	-.2418E-05	-.5485E+00	.2957E+00	.9971E+00
62	.3765E+00	.6581E+01	.1384E+02	-.8976E-06	-.1782E+00	.8746E+00	-.2841E-05	-.4838E+00	.2618E+00	.9978E+00
63	.3380E+00	.7260E+01	.1511E+02	-.1034E-05	-.8095E-01	.8221E+00	-.3325E-05	-.4329E+00	.2209E+00	.9983E+00
64	.2999E+00	.7888E+01	.1640E+02	-.1176E-05	-.7389E-02	.7655E+00	-.3849E-05	-.3935E+00	.1837E+00	.9987E+00
65	.2623E+00	.8485E+01	.1774E+02	-.1316E-05	.4714E-01	.7072E+00	-.4391E-05	-.3606E+00	.1539E+00	.9990E+00
66	.2274E+00	.9062E+01	.1915E+02	-.1436E-05	.8569E-01	.6516E+00	-.4886E-05	-.3311E+00	.1356E+00	.9993E+00
67	.1976E+00	.9678E+01	.2065E+02	-.1505E-05	.1117E+00	.5997E+00	-.5233E-05	-.3069E+00	.1215E+00	.9994E+00
68	.1709E+00	.1029E+02	.2226E+02	-.1533E-05	.1245E+00	.5571E+00	-.5449E-05	-.2631E+00	.1953E+00	.9995E+00
69	.1517E+00	.1196E+02	.2373E+02	-.1481E-05	.1437E+00	.5037E+00	-.5379E-05	-.2010E+00	.3514E+00	.9996E+00
70	.1349E+00	.1492E+02	.2491E+02	-.1416E-05	.1678E+00	.4265E+00	-.5247E-05	-.1264E+00	.4828E+00	.9997E+00
71	.1206E+00	.1912E+02	.2560E+02	-.1384E-05	.2022E+00	.3265E+00	-.5200E-05	-.8535E-02	.5828E+00	.9997E+00
72	.1053E+00	.2459E+02	.2505E+02	-.2087E-05	.2413E+00	.1549E+00	-.7935E-05	.1304E+00	.5201E+00	.9997E+00
73	.1097E+00	.2900E+02	.2313E+02	0.	.2571E+00	.3740E-13	0.	.2855E+00	.4265E+00	.9997E+00

SECOND INDEX= 21

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9009E+00	.9663E+00	.1007E+01	-.2108E-01	.9626E+00	.9451E+00	.9909E+00	.3652E+01	-.1007E+01	.2108E-01	-.1156E-01
2	.9009E+00	.9663E+00	.1007E+01	-.2108E-01	.9626E+00	.9451E+00	.9909E+00	.3652E+01	-.1007E+01	.2108E-01	-.1156E-01
3	.8969E+00	.9638E+00	.1007E+01	-.2199E-01	.9595E+00	.9444E+00	.9901E+00	.3654E+01	-.1007E+01	.2199E-01	-.1203E-01
4	.8885E+00	.9583E+00	.1007E+01	-.2394E-01	.9528E+00	.9431E+00	.9887E+00	.3660E+01	-.1007E+01	.2394E-01	-.1300E-01
5	.8769E+00	.9504E+00	.1006E+01	-.2674E-01	.9434E+00	.9417E+00	.9869E+00	.3667E+01	-.1006E+01	.1687E-01	-.1435E-01
6	.8638E+00	.9412E+00	.1006E+01	-.3005E-01	.9328E+00	.9403E+00	.9850E+00	.3676E+01	-.1006E+01	.8932E-02	-.1589E-01
7	.8507E+00	.9317E+00	.1006E+01	-.3348E-01	.9223E+00	.9393E+00	.9836E+00	.3685E+01	-.1006E+01	.1104E-01	-.1741E-01
8	.8387E+00	.9225E+00	.1006E+01	-.3676E-01	.9130E+00	.9390E+00	.9831E+00	.3695E+01	-.1006E+01	.1440E-01	-.1881E-01
9	.8279E+00	.9135E+00	.1007E+01	-.3979E-01	.9050E+00	.9398E+00	.9838E+00	.3704E+01	-.1007E+01	.1750E-01	-.2006E-01
10	.8175E+00	.9039E+00	.1009E+01	-.4270E-01	.8977E+00	.9417E+00	.9858E+00	.3715E+01	-.1009E+01	.2018E-01	-.2129E-01
11	.8056E+00	.8923E+00	.1011E+01	-.4579E-01	.8896E+00	.9450E+00	.9892E+00	.3728E+01	-.1011E+01	.2335E-01	-.2267E-01
12	.7906E+00	.8774E+00	.1014E+01	-.4940E-01	.8792E+00	.9495E+00	.9938E+00	.3745E+01	-.1015E+01	.2774E-01	-.2442E-01
13	.7717E+00	.8586E+00	.1019E+01	-.5368E-01	.8657E+00	.9553E+00	.9992E+00	.3765E+01	-.1021E+01	.3154E-01	-.2662E-01
14	.7498E+00	.8369E+00	.1023E+01	-.5843E-01	.8496E+00	.9620E+00	.1005E+01	.3789E+01	-.1025E+01	.3744E-01	-.2918E-01
15	.7280E+00	.8151E+00	.1028E+01	-.6289E-01	.8331E+00	.9693E+00	.1011E+01	.3813E+01	-.1033E+01	.4484E-01	-.3172E-01
16	.7114E+00	.7973E+00	.1032E+01	-.6573E-01	.8202E+00	.9769E+00	.1017E+01	.3830E+01	-.1034E+01	.3930E-01	-.3366E-01
17	.7063E+00	.7887E+00	.1036E+01	-.6526E-01	.8156E+00	.9848E+00	.1023E+01	.3834E+01	-.1036E+01	.1937E-01	-.3425E-01
18	.7189E+00	.7943E+00	.1036E+01	-.5991E-01	.8244E+00	.9923E+00	.1027E+01	.3818E+01	-.1038E+01	-.4441E-02	-.3279E-01
19	.7533E+00	.8179E+00	.1035E+01	-.4903E-01	.8505E+00	.9982E+00	.1030E+01	.3781E+01	-.1036E+01	-.5607E-02	-.2877E-01
20	.8101E+00	.8602E+00	.1033E+01	-.3344E-01	.8948E+00	.1000E+01	.1032E+01	.3729E+01	-.1025E+01	-.3182E-01	-.2214E-01
21	.8856E+00	.9187E+00	.1030E+01	-.1519E-01	.9545E+00	.9972E+00	.1033E+01	.3672E+01	-.1009E+01	-.7585E-01	-.1334E-01
22	.9720E+00	.9868E+00	.1026E+01	.3332E-02	.1023E+01	.9903E+00	.1032E+01	.3617E+01	-.1031E+01	.1402E-01	-.3260E-02
23	.1059E+01	.1055E+01	.1021E+01	.2008E-01	.1091E+01	.9823E+00	.1031E+01	.3567E+01	-.1098E+01	.1394E+00	.6858E-02
24	.1139E+01	.1117E+01	.1016E+01	.3445E-01	.1150E+01	.9759E+00	.1029E+01	.3522E+01	-.1025E+01	.1244E-01	.1622E-01
25	.1216E+01	.1175E+01	.1011E+01	.4754E-01	.1207E+01	.9706E+00	.1028E+01	.3482E+01	-.8506E+00	-.2755E+00	.2525E-01
26	.1294E+01	.1234E+01	.1007E+01	.5992E-01	.1264E+01	.9648E+00	.1027E+01	.3447E+01	-.8284E+00	-.3338E+00	.3433E-01
27	.1366E+01	.1287E+01	.1004E+01	.7061E-01	.1317E+01	.9592E+00	.1027E+01	.3419E+01	-.8620E+00	-.2670E+00	.4268E-01
28	.1422E+01	.1329E+01	.1001E+01	.7852E-01	.1357E+01	.9553E+00	.1026E+01	.3396E+01	-.8894E+00	-.2162E+00	.4920E-01
29	.1459E+01	.1354E+01	.9982E+00	.8353E-01	.1381E+01	.9538E+00	.1025E+01	.3378E+01	-.9064E+00	-.1866E+00	.5348E-01
30	.1479E+01	.1367E+01	.9962E+00	.8622E-01	.1392E+01	.9542E+00	.1023E+01	.3365E+01	-.9192E+00	-.1630E+00	.5583E-01
31	.1488E+01	.1372E+01	.9948E+00	.8741E-01	.1396E+01	.9553E+00	.1022E+01	.3357E+01	-.9619E+00	-.7092E-01	.5692E-01
32	.1492E+01	.1373E+01	.9938E+00	.8780E-01	.1395E+01	.9566E+00	.1022E+01	.3351E+01	-.1008E+01	.1850E-01	.5733E-01
33	.1493E+01	.1373E+01	.9930E+00	.8785E-01	.1394E+01	.9574E+00	.1021E+01	.3346E+01	-.1187E+01	.2910E+00	.5746E-01
34	.1493E+01	.1373E+01	.9921E+00	.8781E-01	.1392E+01	.9579E+00	.1020E+01	.3343E+01	-.1324E+01	.4410E+00	.5755E-01
35	.1495E+01	.1374E+01	.9910E+00	.8777E-01	.1390E+01	.9583E+00	.1018E+01	.3338E+01	-.1224E+01	.2805E+00	.5771E-01
36	.1497E+01	.1375E+01	.9896E+00	.8772E-01	.1389E+01	.9588E+00	.1017E+01	.3332E+01	-.1105E+01	.1276E+00	.5799E-01
37	.1501E+01	.1376E+01	.9880E+00	.8763E-01	.1387E+01	.9596E+00	.1015E+01	.3325E+01	-.1221E+01	.2505E+00	.5841E-01
38	.1506E+01	.1378E+01	.9860E+00	.8755E-01	.1386E+01	.9609E+00	.1013E+01	.3315E+01	-.1221E+01	.2397E+00	.5900E-01
39	.1513E+01	.1381E+01	.9837E+00	.8756E-01	.1385E+01	.9629E+00	.1010E+01	.3302E+01	-.7962E+00	-.1964E+00	.5985E-01

40	.1523E+01	.1385E+01	.9812E+00	.8781E-01	.1384E+01	.9657E+00	.1008E+01	.3288E+01	-.6552E+00	-.3395E+00	.6102E-01
41	.1535E+01	.1388E+01	.9786E+00	.8827E-01	.1384E+01	.9700E+00	.1006E+01	.3270E+01	-.6835E+00	-.3087E+00	.6242E-01
42	.1547E+01	.1389E+01	.9758E+00	.8867E-01	.1382E+01	.9763E+00	.1004E+01	.3250E+01	-.6377E+00	-.3564E+00	.6375E-01
43	.1553E+01	.1385E+01	.9729E+00	.8850E-01	.1374E+01	.9847E+00	.1003E+01	.3229E+01	-.6139E+00	-.3834E+00	.6450E-01
44	.1549E+01	.1372E+01	.9704E+00	.8704E-01	.1358E+01	.9944E+00	.1001E+01	.3210E+01	-.6902E+00	-.3027E+00	.6399E-01
45	.1528E+01	.1349E+01	.9688E+00	.8345E-01	.1333E+01	.1004E+01	.9995E+00	.3199E+01	-.6326E+00	-.3711E+00	.6153E-01
46	.1485E+01	.1315E+01	.9686E+00	.7697E-01	.1296E+01	.1012E+01	.9977E+00	.3200E+01	-.5797E+00	-.4471E+00	.5654E-01
47	.1419E+01	.1269E+01	.9702E+00	.6711E-01	.1249E+01	.1017E+01	.9959E+00	.3219E+01	-.6539E+00	-.3714E+00	.4804E-01
48	.1333E+01	.1212E+01	.9740E+00	.5399E-01	.1194E+01	.1018E+01	.9943E+00	.3257E+01	-.6047E+00	-.4665E+00	.3879E-01
49	.1235E+01	.1151E+01	.9796E+00	.3851E-01	.1135E+01	.1014E+01	.9933E+00	.3313E+01	-.5654E+00	-.6063E+00	.2736E-01
50	.1137E+01	.1091E+01	.9863E+00	.2240E-01	.1079E+01	.1006E+01	.9932E+00	.3383E+01	-.6118E+00	-.6000E+00	.1601E-01
51	.1054E+01	.1040E+01	.9931E+00	.7957E-02	.1032E+01	.9980E+00	.9943E+00	.3453E+01	-.6545E+00	-.6052E+00	.6271E-02
52	.9935E+00	.1001E+01	.9988E+00	-.2721E-02	.9975E+00	.9922E+00	.9962E+00	.3509E+01	-.6926E+00	-.6279E+00	-.7594E-03
53	.9594E+00	.9776E+00	.1003E+01	-.8648E-02	.9776E+00	.9903E+00	.9985E+00	.3543E+01	-.7426E+00	-.8315E+00	-.4736E-02
54	.9476E+00	.9679E+00	.1004E+01	-.1037E-01	.9701E+00	.9919E+00	.1000E+01	.3553E+01	-.8517E+00	-.1023E+01	-.6116E-02
55	.9503E+00	.9679E+00	.1005E+01	-.9396E-02	.9711E+00	.9947E+00	.1002E+01	.3549E+01	-.9049E+00	-.1040E+01	-.5793E-02
56	.9600E+00	.9731E+00	.1004E+01	-.7284E-02	.9764E+00	.9973E+00	.1002E+01	.3538E+01	-.9894E+00	-.1128E+01	-.4664E-02
57	.9710E+00	.9798E+00	.1003E+01	-.5118E-02	.9826E+00	.9990E+00	.1002E+01	.3527E+01	-.1170E+01	-.1375E+01	-.3387E-02
58	.9802E+00	.9859E+00	.1002E+01	-.3401E-02	.9880E+00	.9999E+00	.1001E+01	.3518E+01	-.1576E+01	-.1916E+01	-.2311E-02
59	.9868E+00	.9903E+00	.1002E+01	-.2228E-02	.9919E+00	.1000E+01	.1001E+01	.3512E+01	-.1530E+01	-.2010E+01	-.1541E-02
60	.9912E+00	.9934E+00	.1001E+01	-.1462E-02	.9945E+00	.1000E+01	.1001E+01	.3507E+01	-.1146E+01	-.1739E+01	-.1024E-02
61	.9943E+00	.9955E+00	.1001E+01	-.9405E-03	.9962E+00	.1001E+01	.1001E+01	.3504E+01	-.8016E+00	-.1482E+01	-.6661E-03
62	.9965E+00	.9971E+00	.1000E+01	-.5776E-03	.9974E+00	.1001E+01	.1000E+01	.3502E+01	-.5415E+00	-.1294E+01	-.4090E-03
63	.9980E+00	.9982E+00	.1000E+01	-.3419E-03	.9983E+00	.1001E+01	.1000E+01	.3501E+01	-.3507E+00	-.1165E+01	-.2301E-03
64	.9990E+00	.9989E+00	.9999E+00	-.2098E-03	.9988E+00	.1001E+01	.9999E+00	.3500E+01	-.2094E+00	-.1081E+01	-.1186E-03
65	.9995E+00	.9993E+00	.9998E+00	-.1463E-03	.9991E+00	.1000E+01	.9998E+00	.3499E+01	-.1029E+00	-.1032E+01	-.5896E-04
66	.9997E+00	.9996E+00	.9998E+00	-.1154E-03	.9993E+00	.1000E+01	.9997E+00	.3499E+01	-.1718E-01	-.1004E+01	-.3200E-04
67	.9998E+00	.9997E+00	.9998E+00	-.9299E-04	.9994E+00	.1000E+01	.9997E+00	.3499E+01	.5909E-01	-.9871E+00	-.2113E-04
68	.9999E+00	.9998E+00	.9998E+00	-.7086E-04	.9995E+00	.1000E+01	.9998E+00	.3499E+01	.1189E+00	-.9450E+00	-.1675E-04
69	.9999E+00	.9998E+00	.9998E+00	-.5010E-04	.9996E+00	.1000E+01	.9998E+00	.3499E+01	.2394E+00	-.8105E+00	-.1462E-04
70	.9999E+00	.9998E+00	.9999E+00	-.3404E-04	.9997E+00	.1000E+01	.9998E+00	.3499E+01	.4453E+00	-.5922E+00	-.1341E-04
71	.9999E+00	.9999E+00	.9999E+00	-.2442E-04	.9997E+00	.1000E+01	.9998E+00	.3500E+01	.7873E+00	-.2318E+00	-.1277E-04
72	.9999E+00	.9999E+00	.9999E+00	-.1970E-04	.9997E+00	.1000E+01	.9999E+00	.3500E+01	.1172E+01	.2162E+00	-.1191E-04
73	.9999E+00	.9999E+00	.9999E+00	-.1965E-04	.9997E+00	.1000E+01	.9999E+00	.3500E+01	.1084E+01	.4196E+00	-.1189E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.3520E+00	.9000E+02	.2126E+01	0.	-.2500E+00	-.8003E-13	0.	.5079E-11	-.1408E+01	.9323E+00
2	.3520E+00	.8600E+02	.2126E+01	.1443E-05	-.2500E+00	.1169E-08	.5424E-05	.1688E-11	-.1408E+01	.9323E+00
3	.3520E+00	.8200E+02	.2126E+01	.1152E-05	-.2500E+00	.5138E-08	.4282E-05	0.	-.1408E+01	.9306E+00
4	.3520E+00	.7800E+02	.2126E+01	.1194E-05	-.2500E+00	.2050E-07	.4420E-05	.7503E-14	-.1408E+01	.9272E+00
5	.3520E+00	.7400E+02	.2126E+01	.1241E-05	-.2500E+00	.8145E-07	.4663E-05	-.1382E-01	-.1408E+01	.9227E+00
6	.3646E+00	.7000E+02	.2204E+01	.1219E-05	-.2500E+00	.3335E-06	.4786E-05	-.3062E-01	-.1458E+01	.9177E+00
7	.3801E+00	.6600E+02	.2294E+01	.1135E-05	-.2500E+00	.1423E-05	.4819E-05	-.3394E-01	-.1521E+01	.9131E+00
8	.3970E+00	.6200E+02	.2383E+01	.9716E-06	-.2500E+00	.6371E-05	.4672E-05	-.3530E-01	-.1588E+01	.9092E+00
9	.4156E+00	.5800E+02	.2472E+01	.7177E-06	-.2500E+00	.3005E-04	.4249E-05	-.3678E-01	-.1662E+01	.9064E+00
10	.4361E+00	.5400E+02	.2560E+01	.3808E-06	-.2502E+00	.1498E-03	.3496E-05	-.3891E-01	-.1743E+01	.9044E+00
11	.4593E+00	.5001E+02	.2650E+01	-.1143E-07	-.2511E+00	.7892E-03	.2423E-05	-.4059E-01	-.1829E+01	.9028E+00
12	.4946E+00	.4604E+02	.2737E+01	-.4067E-06	-.2566E+00	.4355E-02	.1098E-05	-.4112E-01	-.1927E+01	.9011E+00
13	.5855E+00	.4222E+02	.2816E+01	-.6831E-06	-.2883E+00	.2352E-01	-.2411E-06	-.4415E-01	-.2027E+01	.8988E+00
14	.7176E+00	.3911E+02	.2888E+01	-.8045E-06	-.3370E+00	.1770E-01	-.1213E-05	-.4357E-01	-.2122E+01	.8959E+00
15	.8800E+00	.3630E+02	.2938E+01	-.8104E-06	-.3984E+00	.4703E-01	-.1782E-05	-.3919E-01	-.2204E+01	.8931E+00
16	.1055E+01	.3410E+02	.2977E+01	-.7567E-06	-.4718E+00	.2403E-01	-.2061E-05	-.5722E-01	-.2233E+01	.8923E+00
17	.1140E+01	.3207E+02	.3046E+01	-.7337E-06	-.5009E+00	.1729E-01	-.2333E-05	-.1007E+00	-.2272E+01	.8956E+00
18	.1239E+01	.3012E+02	.3153E+01	-.6817E-06	-.5298E+00	.3237E-01	-.2456E-05	-.1448E+00	-.2331E+01	.9050E+00
19	.1424E+01	.2831E+02	.3280E+01	-.5969E-06	-.5896E+00	.8770E-01	-.2381E-05	-.1264E+00	-.2396E+01	.9210E+00
20	.1769E+01	.2675E+02	.3331E+01	-.4937E-06	-.7376E+00	.2411E+00	-.2123E-05	-.1463E+00	-.2351E+01	.9417E+00
21	.2448E+01	.2565E+02	.3446E+01	-.3768E-06	-.9744E+00	.3409E+00	-.1699E-05	-.2106E+00	-.2439E+01	.9640E+00
22	.2936E+01	.2476E+02	.3503E+01	-.3362E-06	-.1174E+01	.4804E+00	-.1556E-05	.3982E-01	-.2517E+01	.9850E+00
23	.3629E+01	.2393E+02	.3418E+01	-.2891E-06	-.1334E+01	.7486E+00	-.1362E-05	.3816E+00	-.2934E+01	.1004E+01
24	.4502E+01	.2314E+02	.3293E+01	-.2418E-06	-.1536E+01	.1211E+01	-.1161E-05	.1311E+00	-.3034E+01	.1020E+01
25	.5415E+01	.2259E+02	.3360E+01	-.1989E-06	-.1776E+01	.1482E+01	-.9820E-06	-.5146E+00	-.2620E+01	.1035E+01
26	.6454E+01	.2217E+02	.3483E+01	-.1556E-06	-.2105E+01	.1628E+01	-.8008E-06	-.6513E+00	-.2562E+01	.1049E+01
27	.7267E+01	.2179E+02	.3562E+01	-.1219E-06	-.2395E+01	.1696E+01	-.6653E-06	-.4687E+00	-.2703E+01	.1061E+01
28	.7824E+01	.2143E+02	.3612E+01	-.9585E-07	-.2624E+01	.1696E+01	-.5658E-06	-.3234E+00	-.2773E+01	.1070E+01
29	.8140E+01	.2108E+02	.3645E+01	-.7558E-07	-.2776E+01	.1644E+01	-.4930E-06	-.2380E+00	-.2792E+01	.1077E+01

30	.8227E+01	.2074E+02	.3670E+01	-.5917E-07	-.2840E+01	.1567E+01	-.4415E-06	-.1725E+00	-.2801E+01	.1081E+01
31	.8064E+01	.2040E+02	.3687E+01	-.4541E-07	-.2812E+01	.1489E+01	-.4054E-06	.7477E-01	-.2907E+01	.1084E+01
32	.7601E+01	.2002E+02	.3652E+01	-.3358E-07	-.2691E+01	.1429E+01	-.3857E-06	.3106E+00	-.2989E+01	.1086E+01
33	.6766E+01	.1962E+02	.3605E+01	-.2432E-07	-.2415E+01	.1376E+01	-.3928E-06	.1012E+01	-.3377E+01	.1087E+01
34	.5513E+01	.1903E+02	.3353E+01	-.1812E-07	-.2040E+01	.1429E+01	-.4457E-06	.1304E+01	-.3616E+01	.1088E+01
35	.4923E+01	.1830E+02	.3132E+01	-.1074E-07	-.1726E+01	.1744E+01	-.4653E-06	.9010E+00	-.3763E+01	.1088E+01
36	.4679E+01	.1750E+02	.2986E+01	-.8412E-09	-.1521E+01	.2067E+01	-.4446E-06	.5773E+00	-.3861E+01	.1089E+01
37	.3765E+01	.1665E+02	.2885E+01	.1698E-07	-.1180E+01	.1927E+01	-.4635E-06	.8251E+00	-.4539E+01	.1090E+01
38	.3572E+01	.1509E+02	.2548E+01	.4155E-07	-.9761E+00	.2444E+01	-.3595E-06	.8422E+00	-.5769E+01	.1093E+01
39	.3101E+01	.1342E+02	.2413E+01	.7546E-07	-.7769E+00	.2605E+01	-.2465E-06	.1819E+00	-.4602E+01	.1096E+01
40	.2716E+01	.1212E+02	.2431E+01	.1109E-06	-.7389E+00	.2542E+01	-.9874E-07	-.3774E-01	-.3546E+01	.1100E+01
41	.2400E+01	.1081E+02	.2441E+01	.1379E-06	-.7583E+00	.2464E+01	.4594E-07	-.1167E-01	-.3127E+01	.1106E+01
42	.2153E+01	.9512E+01	.2441E+01	.1470E-06	-.7940E+00	.2404E+01	.1517E-06	-.8867E-01	-.2443E+01	.1113E+01
43	.2103E+01	.8543E+01	.2524E+01	.1254E-06	-.8724E+00	.2405E+01	.1814E-06	-.1397E+00	-.2025E+01	.1122E+01
44	.2044E+01	.7585E+01	.2573E+01	.9140E-07	-.9614E+00	.2386E+01	.1534E-06	-.7346E-01	-.1944E+01	.1129E+01
45	.2010E+01	.6641E+01	.2595E+01	.5030E-07	-.1055E+01	.2395E+01	.8584E-07	-.1617E+00	-.1538E+01	.1132E+01
46	.2087E+01	.6054E+01	.2734E+01	.9251E-08	-.1200E+01	.2446E+01	.2471E-08	-.2571E+00	-.1215E+01	.1129E+01
47	.2134E+01	.5477E+01	.2842E+01	-.2413E-07	-.1342E+01	.2452E+01	-.7479E-07	-.2086E+00	-.1209E+01	.1118E+01
48	.2164E+01	.4921E+01	.2930E+01	-.5023E-07	-.1481E+01	.2447E+01	-.1412E-06	-.3097E+00	-.9490E+00	.1099E+01
49	.2204E+01	.4599E+01	.3128E+01	-.6888E-07	-.1652E+01	.2434E+01	-.1922E-06	-.4365E+00	-.6907E+00	.1072E+01
50	.2163E+01	.4294E+01	.3326E+01	-.8394E-07	-.1779E+01	.2345E+01	-.2361E-06	-.4323E+00	-.6457E+00	.1042E+01
51	.2084E+01	.4002E+01	.3528E+01	-.9590E-07	-.1883E+01	.2227E+01	-.2731E-06	-.4307E+00	-.5975E+00	.1014E+01
52	.1975E+01	.3721E+01	.3739E+01	-.1059E-06	-.1961E+01	.2089E+01	-.3056E-06	-.4350E+00	-.5442E+00	.9925E+00
53	.1824E+01	.3451E+01	.3968E+01	-.1161E-06	-.1994E+01	.1917E+01	-.3389E-06	-.5502E+00	-.3858E+00	.9814E+00
54	.1668E+01	.3298E+01	.4343E+01	-.1253E-06	-.1986E+01	.1722E+01	-.3694E-06	-.6492E+00	-.2771E+00	.9790E+00
55	.1452E+01	.3119E+01	.4747E+01	-.1396E-06	-.1888E+01	.1477E+01	-.4150E-06	-.6292E+00	-.2768E+00	.9818E+00
56	.1221E+01	.2917E+01	.5209E+01	-.1594E-06	-.1718E+01	.1225E+01	-.4769E-06	-.6517E+00	-.2460E+00	.9865E+00
57	.9851E+00	.2716E+01	.5814E+01	-.1894E-06	-.1477E+01	.9925E+00	-.5701E-06	-.7596E+00	-.1566E+00	.9909E+00
58	.8114E+00	.2599E+01	.6752E+01	-.2246E-06	-.1237E+01	.8658E+00	-.6811E-06	-.1027E+01	.6291E-01	.9942E+00
59	.6600E+00	.2871E+01	.8346E+01	-.2811E-06	-.9052E+00	.8235E+00	-.8614E-06	-.1082E+01	.2552E+00	.9964E+00
60	.5713E+00	.3372E+01	.1003E+02	-.3448E-06	-.6633E+00	.8274E+00	-.1070E-05	-.9354E+00	.3055E+00	.9978E+00
61	.5070E+00	.3940E+01	.1162E+02	-.4196E-06	-.4606E+00	.8175E+00	-.1320E-05	-.7916E+00	.2916E+00	.9987E+00
62	.4501E+00	.4522E+01	.1315E+02	-.5061E-06	-.3348E+00	.7870E+00	-.1614E-05	-.6806E+00	.2554E+00	.9994E+00
63	.4005E+00	.5075E+01	.1464E+02	-.5955E-06	-.2217E+00	.7496E+00	-.1927E-05	-.5966E+00	.2106E+00	.9998E+00
64	.3530E+00	.5574E+01	.1613E+02	-.6864E-06	-.1325E+00	.7057E+00	-.2256E-05	-.5316E+00	.1676E+00	.1000E+01
65	.3081E+00	.6025E+01	.1766E+02	-.7723E-06	-.6352E-01	.6587E+00	-.2581E-05	-.4806E+00	.1328E+00	.1000E+01
66	.2681E+00	.6435E+01	.1925E+02	-.8423E-06	-.1008E-01	.6138E+00	-.2867E-05	-.4386E+00	.1162E+00	.1000E+01
67	.2361E+00	.6892E+01	.2093E+02	-.8788E-06	.3349E-01	.5749E+00	-.3051E-05	-.4048E+00	.1015E+00	.1000E+01
68	.2111E+00	.7296E+01	.2268E+02	-.8805E-06	.6019E-01	.5518E+00	-.3123E-05	-.3594E+00	.2119E+00	.1000E+01
69	.1951E+00	.8899E+01	.2434E+02	-.8391E-06	.8586E-01	.5226E+00	-.3043E-05	-.2986E+00	.4550E+00	.1000E+01
70	.1810E+00	.1196E+02	.2574E+02	-.7946E-06	.1120E+00	.4711E+00	-.2943E-05	-.2213E+00	.6848E+00	.1000E+01
71	.1604E+00	.1647E+02	.2678E+02	-.8045E-06	.1432E+00	.3786E+00	-.3029E-05	-.9185E-01	.8771E+00	.1000E+01
72	.1313E+00	.2290E+02	.2689E+02	-.1215E-05	.1857E+00	.2153E+00	-.4645E-05	.9987E-01	.8227E+00	.1000E+01
73	.8990E-01	.2900E+02	.2526E+02	0.	.1684E+00	.5110E-14	0.	.2241E+00	.5339E+00	.1000E+01

SECOND INDEX= 22

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9078E+00	.9834E+00	.1009E+01	-.1947E-01	.9808E+00	.9294E+00	.9912E+00	.3677E+01	-.1009E+01	.1947E-01	-.1075E-01
2	.9078E+00	.9834E+00	.1009E+01	-.1947E-01	.9808E+00	.9294E+00	.9912E+00	.3677E+01	-.1009E+01	.1947E-01	-.1075E-01
3	.9025E+00	.9798E+00	.1009E+01	-.2067E-01	.9764E+00	.9287E+00	.9904E+00	.3681E+01	-.1009E+01	.2067E-01	-.1137E-01
4	.8918E+00	.9722E+00	.1009E+01	-.2317E-01	.9675E+00	.9277E+00	.9887E+00	.3687E+01	-.1009E+01	.2317E-01	-.1262E-01
5	.8773E+00	.9618E+00	.1008E+01	-.2664E-01	.9554E+00	.9264E+00	.9866E+00	.3696E+01	-.1008E+01	.1408E-01	-.1431E-01
6	.8616E+00	.9503E+00	.1008E+01	-.3056E-01	.9423E+00	.9253E+00	.9845E+00	.3706E+01	-.1008E+01	.3693E-02	-.1614E-01
7	.8472E+00	.9393E+00	.1007E+01	-.3435E-01	.9302E+00	.9248E+00	.9830E+00	.3715E+01	-.1008E+01	.5774E-02	-.1782E-01
8	.8357E+00	.9298E+00	.1008E+01	-.3757E-01	.9206E+00	.9254E+00	.9825E+00	.3722E+01	-.1008E+01	.9082E-02	-.1916E-01
9	.8274E+00	.9217E+00	.1008E+01	-.4008E-01	.9135E+00	.9274E+00	.9834E+00	.3728E+01	-.1009E+01	.1166E-01	-.2013E-01
10	.8208E+00	.9139E+00	.1010E+01	-.4207E-01	.9080E+00	.9310E+00	.9856E+00	.3732E+01	-.1010E+01	.1352E-01	-.2090E-01
11	.8133E+00	.9041E+00	.1012E+01	-.4406E-01	.9016E+00	.9366E+00	.9892E+00	.3738E+01	-.1012E+01	.1555E-01	- 2178E-01
12	.8017E+00	.8899E+00	.1015E+01	-.4671E-01	.8919E+00	.9440E+00	.9939E+00	.3745E+01	-.1015E+01	.1894E-01	-.2312E-01
13	.7836E+00	.8695E+00	.1018E+01	-.5061E-01	.8765E+00	.9531E+00	.9992E+00	.3758E+01	-.1021E+01	.2238E-01	-.2523E-01
14	.7583E+00	.8428E+00	.1022E+01	-.5601E-01	.8549E+00	.9635E+00	.1005E+01	.3777E+01	-.1024E+01	.2901E-01	-.2819E-01
15	.7278E+00	.8118E+00	.1026E+01	-.6258E-01	.8287E+00	.9744E+00	.1011E+01	.3801E+01	-.1033E+01	.4049E-01	-.3175E-01
16	.6969E+00	.7810E+00	.1030E+01	-.6923E-01	.8020E+00	.9850E+00	.1016E+01	.3826E+01	-.1033E+01	.4000E-01	-.3534E-01
17	.6728E+00	.7562E+00	.1034E+01	-.7410E-01	.7805E+00	.9949E+00	.1020E+01	.3845E+01	-.1036E+01	.2379E-01	-.3816E-01
18	.6630E+00	.7435E+00	.1036E+01	-.7493E-01	.7703E+00	.1004E+01	.1024E+01	.3849E+01	-.1038E+01	.4954E-02	-.3930E-01

19	.6743E+00	.7484E+00	.1036E+01	-.6977E-01	.7771E+00	.1012E+01	.1027E+01	.3829E+01	-.1040E+01	.1180E-01	-.3798E-01
20	.7102E+00	.7737E+00	.1035E+01	-.5816E-01	.8039E+00	.1017E+01	.1029E+01	.3787E+01	-.1032E+01	-.1277E-01	-.3380E-01
21	.7699E+00	.8192E+00	.1032E+01	-.4148E-01	.8504E+00	.1018E+01	.1030E+01	.3729E+01	-.1013E+01	-.5768E-01	-.2684E-01
22	.8480E+00	.8802E+00	.1028E+01	-.2233E-01	.9120E+00	.1014E+01	.1030E+01	.3667E+01	-.1038E+01	.2150E-01	-.1773E-01
23	.9346E+00	.9477E+00	.1023E+01	-.3425E-02	.9790E+00	.1008E+01	.1029E+01	.3606E+01	-.1096E+01	.1189E+00	-.7627E-02
24	.1023E+01	.1015E+01	.1018E+01	.1417E-01	.1045E+01	.1002E+01	.1028E+01	.3548E+01	-.1016E+01	-.2129E-02	.2688E-02
25	.1115E+01	.1085E+01	.1012E+01	.3111E-01	.1114E+01	.9946E+00	.1026E+01	.3497E+01	-.8235E+00	-.2854E+00	.1343E-01
26	.1212E+01	.1160E+01	.1008E+01	.4737E-01	.1189E+01	.9839E+00	.1026E+01	.3457E+01	-.8112E+00	-.3318E+00	.2467E-01
27	.1302E+01	.1232E+01	.1005E+01	.6133E-01	.1260E+01	.9720E+00	.1026E+01	.3427E+01	-.8634E+00	-.2492E+00	.3518E-01
28	.1373E+01	.1288E+01	.1002E+01	.7173E-01	.1316E+01	.9631E+00	.1025E+01	.3405E+01	-.9003E+00	-.1912E+00	.4351E-01
29	.1422E+01	.1326E+01	.9990E+00	.7865E-01	.1352E+01	.9576E+00	.1024E+01	.3386E+01	-.9196E+00	-.1633E+00	.4925E-01
30	.1453E+01	.1348E+01	.9968E+00	.8291E-01	.1372E+01	.9572E+00	.1023E+01	.3371E+01	-.9321E+00	-.1438E+00	.5285E-01
31	.1472E+01	.1360E+01	.9950E+00	.8542E-01	.1382E+01	.9573E+00	.1022E+01	.3360E+01	-.9730E+00	-.5282E-01	.5504E-01
32	.1483E+01	.1366E+01	.9937E+00	.8683E-01	.1387E+01	.9581E+00	.1021E+01	.3351E+01	-.1011E+01	.2581E-01	.5635E-01
33	.1490E+01	.1369E+01	.9923E+00	.8758E-01	.1389E+01	.9595E+00	.1020E+01	.3343E+01	-.1159E+01	.2591E+00	.5714E-01
34	.1494E+01	.1370E+01	.9908E+00	.8790E-01	.1386E+01	.9621E+00	.1019E+01	.3333E+01	-.1263E+01	.3541E+00	.5763E-01
35	.1497E+01	.1368E+01	.9888E+00	.8796E-01	.1382E+01	.9658E+00	.1017E+01	.3321E+01	-.1153E+01	.1880E+00	.5798E-01
36	.1500E+01	.1366E+01	.9867E+00	.8783E-01	.1376E+01	.9693E+00	.1015E+01	.3309E+01	-.1056E+01	.7259E-01	.5830E-01
37	.1503E+01	.1365E+01	.9846E+00	.8756E-01	.1372E+01	.9718E+00	.1013E+01	.3298E+01	-.1141E+01	.1648E+00	.5867E-01
38	.1507E+01	.1366E+01	.9825E+00	.8724E-01	.1370E+01	.9734E+00	.1011E+01	.3287E+01	-.1127E+01	.1444E+00	.5913E-01
39	.1513E+01	.1370E+01	.9805E+00	.8704E-01	.1369E+01	.9738E+00	.1008E+01	.3278E+01	-.8067E+00	-.1819E+00	.5982E-01
40	.1522E+01	.1377E+01	.9789E+00	.8715E-01	.1373E+01	.9726E+00	.1006E+01	.3272E+01	-.7390E+00	-.2513E+00	.6086E-01
41	.1533E+01	.1386E+01	.9775E+00	.8758E-01	.1380E+01	.9712E+00	.1005E+01	.3265E+01	-.7863E+00	-.2020E+00	.6220E-01
42	.1545E+01	.1392E+01	.9760E+00	.8809E-01	.1384E+01	.9721E+00	.1004E+01	.3256E+01	-.7388E+00	-.2519E+00	.6354E-01
43	.1553E+01	.1393E+01	.9742E+00	.8830E-01	.1382E+01	.9765E+00	.1003E+01	.3242E+01	-.7186E+00	-.2756E+00	.6448E-01
44	.1553E+01	.1385E+01	.9722E+00	.8764E-01	.1372E+01	.9848E+00	.1002E+01	.3226E+01	-.7910E+00	-.1980E+00	.6448E-01
45	.1540E+01	.1366E+01	.9703E+00	.8544E-01	.1351E+01	.9954E+00	.1001E+01	.3211E+01	-.7226E+00	-.2747E+00	.6300E-01
46	.1510E+01	.1337E+01	.9693E+00	.8094E-01	.1320E+01	.1006E+01	.9994E+00	.3203E+01	-.6618E+00	-.3555E+00	.5950E-01
47	.1460E+01	.1297E+01	.9699E+00	.7357E-01	.1279E+01	.1014E+01	.9981E+00	.3209E+01	-.7366E+00	-.2754E+00	.5360E-01
48	.1389E+01	.1248E+01	.9723E+00	.6310E-01	.1231E+01	.1019E+01	.9968E+00	.3233E+01	-.8757E+00	-.3725E+00	.4533E-01
49	.1302E+01	.1192E+01	.9767E+00	.4996E-01	.1177E+01	.1018E+01	.9958E+00	.3275E+01	-.6188E+00	-.5192E+00	.3527E-01
50	.1210E+01	.1135E+01	.9825E+00	.3532E-01	.1123E+01	.1013E+01	.9953E+00	.3333E+01	-.6678E+00	-.4958E+00	.2451E-01
51	.1124E+01	.1082E+01	.9887E+00	.2100E-01	.1073E+01	.1006E+01	.9955E+00	.3396E+01	-.7100E+00	-.4841E+00	.1446E-01
52	.1054E+01	.1038E+01	.9943E+00	.8965E-02	.1033E+01	.1000E+01	.9965E+00	.3454E+01	-.7445E+00	-.4892E+00	.6343E-02
53	.1007E+01	.1008E+01	.9986E+00	.5979E-03	.1005E+01	.9964E+00	.9978E+00	.3496E+01	-.7688E+00	-.7524E+00	.8312E-03
54	.9816E+00	.9900E+00	.1001E+01	-.3896E-02	.9899E+00	.9955E+00	.9992E+00	.3519E+01	-.9172E+00	-.1033E+01	-.2146E-02
55	.9728E+00	.9831E+00	.1002E+01	-.5308E-02	.9842E+00	.9963E+00	.1000E+01	.3526E+01	-.9938E+00	-.1063E+01	-.3174E-02
56	.9741E+00	.9831E+00	.1002E+01	-.4870E-02	.9847E+00	.9976E+00	.1001E+01	.3525E+01	-.1134E+01	-.1206E+01	-.3022E-02
57	.9795E+00	.9863E+00	.1002E+01	-.3738E-02	.9879E+00	.9986E+00	.1001E+01	.3519E+01	-.1443E+01	-.1569E+01	-.2391E-02
58	.9853E+00	.9900E+00	.1002E+01	-.2602E-02	.9914E+00	.9992E+00	.1001E+01	.3514E+01	-.2125E+01	-.2348E+01	-.1717E-02
59	.9901E+00	.9932E+00	.1001E+01	-.1668E-02	.9944E+00	.9996E+00	.1001E+01	.3510E+01	-.2160E+01	-.2486E+01	-.1156E-02
60	.9941E+00	.9958E+00	.1001E+01	-.8906E-03	.9968E+00	.9999E+00	.1001E+01	.3506E+01	-.1631E+01	-.2064E+01	-.6888E-03
61	.9974E+00	.9980E+00	.1001E+01	-.2644E-03	.9987E+00	.1000E+01	.1001E+01	.3503E+01	-.1162E+01	-.1699E+01	-.2993E-03
62	.9999E+00	.9997E+00	.1000E+01	.1553E-03	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.8126E+00	-.1439E+01	-.1147E-04
63	.1001E+01	.1001E+01	.1000E+01	.3531E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	-.5562E+00	-.1254E+01	.1565E-03
64	.1002E+01	.1001E+01	.9998E+00	.3827E-03	.1001E+01	.1000E+01	.1000E+01	.3498E+01	-.3768E+00	-.1138E+01	.2190E-03
65	.1002E+01	.1001E+01	.9998E+00	.3264E-03	.1001E+01	.1000E+01	.9999E+00	.3498E+01	-.2464E+00	-.1070E+01	.2138E-03
66	.1002E+01	.1001E+01	.9998E+00	.2512E-03	.1001E+01	.1000E+01	.9999E+00	.3498E+01	-.1362E+00	-.1031E+01	.1780E-03
67	.1001E+01	.1001E+01	.9998E+00	.1923E-03	.1001E+01	.1000E+01	.9999E+00	.3499E+01	-.2471E-01	-.1004E+01	.1396E-03
68	.1001E+01	.1001E+01	.9999E+00	.1576E-03	.1000E+01	.1000E+01	.9999E+00	.3499E+01	.6370E-01	-.9735E+00	.1099E-03
69	.1001E+01	.1001E+01	.9999E+00	.1417E-03	.1000E+01	.1000E+01	.1000E+01	.3499E+01	.1686E+00	-.8681E+00	.9118E-04
70	.1001E+01	.1000E+01	.9999E+00	.1360E-03	.1000E+01	.1000E+01	.1000E+01	.3499E+01	.3328E+00	-.6955E+00	.8103E-04
71	.1001E+01	.1000E+01	.9999E+00	.1345E-03	.1000E+01	.1000E+01	.1000E+01	.3499E+01	.6495E+00	-.3702E+00	.7653E-04
72	.1001E+01	.1000E+01	.9999E+00	.1348E-03	.1000E+01	.1000E+01	.1000E+01	.3499E+01	.1070E+01	.7933E-01	.7556E-04
73	.1001E+01	.1000E+01	.9999E+00	.1349E-03	.1000E+01	.1000E+01	.1000E+01	.3499E+01	.1023E+01	.2165E+00	.7560E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.4522E+00	.9000E+02	.1494E+01	0.	-.2500E+00	0.	0.	.7135E-11	-.1809E+01	.9231E+00
2	.4522E+00	.8600E+02	.1494E+01	.1447E-05	-.2500E+00	.1447E-08	.4998E-05	.2368E-11	-.1809E+01	.9231E+00
3	.4522E+00	.8200E+02	.1494E+01	.1127E-05	-.2500E+00	.6290E-08	.3859E-05	-.3213E-14	-.1809E+01	.9211E+00
4	.4522E+00	.7800E+02	.1494E+01	.1129E-05	-.2500E+00	.2496E-07	.3845E-05	.1125E-13	-.1809E+01	.9173E+00
5	.4522E+00	.7400E+02	.1494E+01	.1128E-05	-.2500E+00	.9837E-07	.3887E-05	-.2254E-01	-.1809E+01	.9121E+00
6	.4674E+00	.7000E+02	.1594E+01	.1062E-05	-.2500E+00	.4020E-06	.3797E-05	-.4986E-01	-.1870E+01	.9067E+00
7	.4861E+00	.6600E+02	.1708E+01	.9330E-06	-.2500E+00	.1716E-05	.3579E-05	-.5516E-01	-.1944E+01	.9020E+00
8	.5064E+00	.6200E+02	.1821E+01	.7225E-06	-.2500E+00	.7690E-05	.3148E-05	-.5727E-01	-.2025E+01	.8988E+00

9	.5285E+00	.5800E+02	.1934E+01	.4209E-06	-.2500E+00	.3631E-04	.2427E-05	-.5957E-01	-.2114E+01	.8976E+00
10	.5529E+00	.5400E+02	.2046E+01	.3864E-07	-.2502E+00	.1813E-03	.1397E-05	-.6250E-01	-.2210E+01	.8981E+00
11	.5801E+00	.5001E+02	.2160E+01	-.3916E-06	-.2509E+00	.9601E-03	.1111E-06	-.6514E-01	-.2312E+01	.8996E+00
12	.6201E+00	.4603E+02	.2271E+01	-.8061E-06	-.2552E+00	.5386E-02	-.1279E-05	-.6645E-01	-.2429E+01	.9010E+00
13	.7350E+00	.4217E+02	.2374E+01	-.1038E-05	-.2872E+00	.3140E-01	-.2326E-05	-.7091E-01	-.2551E+01	.9013E+00
14	.8972E+00	.3909E+02	.2464E+01	-.1094E-05	-.3367E+00	.2220E-01	-.2873E-05	-.7030E-01	-.2660E+01	.8998E+00
15	.1106E+01	.3624E+02	.2531E+01	-.1022E-05	-.3980E+00	.6380E-01	-.2987E-05	-.6059E-01	-.2769E+01	.8964E+00
16	.1312E+01	.3400E+02	.2573E+01	-.9001E-06	-.4760E+00	.3041E-01	-.2877E-05	-.7920E-01	-.2791E+01	.8929E+00
17	.1421E+01	.3309E+02	.2650E+01	-.8421E-06	-.5002E+00	.2116E-01	-.2920E-05	-.1380E+00	-.2835E+01	.8897E+00
18	.1524E+01	.3009E+02	.2760E+01	-.7505E-06	-.5222E+00	.3919E-01	-.2820E-05	-.1961E+00	-.2904E+01	.8917E+00
19	.1718E+01	.2824E+02	.2907E+01	-.6249E-06	-.5676E+00	.1082E+00	-.2537E-05	-.1678E+00	-.2994E+01	.9010E+00
20	.2216E+01	.2660E+02	.2963E+01	-.4596E-06	-.7085E+00	.3234E+00	-.2001E-05	-.2056E+00	-.3033E+01	.9178E+00
21	.3086E+01	.2550E+02	.3093E+01	-.3232E-06	-.9530E+00	.4308E+00	-.1483E-05	-.2898E+00	-.3107E+01	.9398E+00
22	.3658E+01	.2459E+02	.3151E+01	-.2761E-06	-.1124E+01	.5882E+00	-.1310E-05	-.1026E-01	-.3250E+01	.9634E+00
23	.4510E+01	.2373E+02	.3098E+01	-.2311E-06	-.1242E+01	.8900E+00	-.1121E-05	.3300E+00	-.3868E+01	.9862E+00
24	.5951E+01	.2287E+02	.3004E+01	-.1806E-06	-.1440E+01	.1493E+01	-.8927E-06	.5231E-01	-.4187E+01	.1008E+01
25	.7345E+01	.2232E+02	.3081E+01	-.1462E-06	-.1746E+01	.1817E+01	-.7413E-06	-.7152E+00	-.3462E+01	.1028E+01
26	.8835E+01	.2193E+02	.3199E+01	-.1153E-06	-.2181E+01	.1960E+01	-.6057E-06	-.8368E+00	-.3299E+01	.1044E+01
27	.9850E+01	.2157E+02	.3270E+01	-.9326E-07	-.2538E+01	.1956E+01	-.5150E-06	-.5515E+00	-.3457E+01	.1057E+01
28	.1043E+02	.2123E+02	.3311E+01	-.7699E-07	-.2798E+01	.1854E+01	-.4528E-06	-.3426E+00	-.3501E+01	.1066E+01
29	.1062E+02	.2090E+02	.3336E+01	-.6498E-07	-.2939E+01	.1694E+01	-.4121E-06	-.2382E+00	-.3477E+01	.1073E+01
30	.1046E+02	.2058E+02	.3356E+01	-.5586E-07	-.2958E+01	.1519E+01	-.3876E-06	-.1669E+00	-.3451E+01	.1078E+01
31	.9916E+01	.2024E+02	.3368E+01	-.4911E-07	-.2847E+01	.1358E+01	-.3790E-06	.1377E+00	-.3549E+01	.1082E+01
32	.9021E+01	.1986E+02	.3328E+01	-.4408E-07	-.2623E+01	.1265E+01	-.3863E-06	.3977E+00	-.3630E+01	.1085E+01
33	.7549E+01	.1944E+02	.3280E+01	-.4208E-07	-.2195E+01	.1185E+01	-.4286E-06	.1148E+01	-.4059E+01	.1088E+01
34	.6283E+01	.1878E+02	.3024E+01	-.3845E-07	-.1787E+01	.1399E+01	-.4746E-06	.1399E+01	-.4612E+01	.1091E+01
35	.6042E+01	.1797E+02	.2834E+01	-.2626E-07	-.1516E+01	.1855E+01	-.4426E-06	.9359E+00	-.5129E+01	.1095E+01
36	.6005E+01	.1709E+02	.2714E+01	-.1057E-07	-.1380E+01	.2204E+01	-.3792E-06	.6456E+00	-.5347E+01	.1098E+01
37	.4605E+01	.1619E+02	.2619E+01	.9438E-08	-.1046E+01	.1906E+01	-.3840E-06	.8906E+00	-.6027E+01	.1101E+01
38	.4679E+01	.1447E+02	.2327E+01	.3116E-07	-.8743E+00	.2532E+01	-.2563E-06	.9854E+00	-.8206E+01	.1103E+01
39	.3963E+01	.1268E+02	.2198E+01	.5849E-07	-.7456E+00	.2563E+01	-.1584E-06	.2828E+00	-.6288E+01	.1104E+01
40	.3488E+01	.1130E+02	.2185E+01	.8682E-07	-.7669E+00	.2478E+01	-.1971E-07	.8391E-01	-.4819E+01	.1105E+01
41	.3074E+01	.9916E+01	.2150E+01	.1103E-06	-.7963E+00	.2374E+01	.1200E-06	.1256E+00	-.4235E+01	.1107E+01
42	.2870E+01	.8540E+01	.2103E+01	.1115E-06	-.8566E+00	.2396E+01	.2042E-06	.1511E-01	-.3393E+01	.1110E+01
43	.2843E+01	.7552E+01	.2140E+01	.8534E-07	-.9696E+00	.2415E+01	.1942E-06	-.5588E-01	-.2793E+01	.1115E+01
44	.2764E+01	.6575E+01	.2142E+01	.4844E-07	-.1053E+01	.2390E+01	.1282E-06	.2639E-01	-.2683E+01	.1122E+01
45	.2869E+01	.5610E+01	.2121E+01	.7972E-08	-.1195E+01	.2531E+01	.3291E-07	-.9683E-01	-.2196E+01	.1128E+01
46	.3093E+01	.5045E+01	.2210E+01	-.2247E-07	-.1430E+01	.2667E+01	-.4788E-07	-.2301E+00	-.1734E+01	.1130E+01
47	.3142E+01	.4489E+01	.2269E+01	-.4338E-07	-.1582E+01	.2647E+01	-.1085E-06	-.1589E+00	-.1720E+01	.1126E+01
48	.3344E+01	.3950E+01	.2311E+01	-.5287E-07	-.1814E+01	.2768E+01	-.1402E-06	-.2968E+00	-.1390E+01	.1113E+01
49	.3587E+01	.3657E+01	.2447E+01	-.5392E-07	-.2147E+01	.2869E+01	-.1478E-06	-.4794E+00	-.1030E+01	.1092E+01
50	.3525E+01	.3376E+01	.2578E+01	-.5425E-07	-.2316E+01	.2738E+01	-.1518E-06	-.4609E+00	-.9770E+00	.1066E+01
51	.3408E+01	.3103E+01	.2708E+01	-.5207E-07	-.2450E+01	.2580E+01	-.1478E-06	-.4495E+00	-.9174E+00	.1039E+01
52	.3248E+01	.2837E+01	.2842E+01	-.4866E-07	-.2552E+01	.2406E+01	-.1399E-06	-.4480E+00	-.8505E+00	.1015E+01
53	.3127E+01	.2579E+01	.2984E+01	-.4383E-07	-.2686E+01	.2276E+01	-.1274E-06	-.6689E+00	-.5974E+00	.9995E+00
54	.3009E+01	.2455E+01	.3270E+01	-.3910E-07	-.2817E+01	.2096E+01	-.1148E-06	-.8859E+00	-.4090E+00	.9915E+00
55	.2612E+01	.2307E+01	.3573E+01	-.3884E-07	-.2675E+01	.1729E+01	-.1149E-06	-.8723E+00	-.4129E+00	.9895E+00
56	.2151E+01	.2139E+01	.3937E+01	-.4087E-07	-.2387E+01	.1339E+01	-.1214E-06	-.9473E+00	-.3697E+00	.9908E+00
57	.1675E+01	.1963E+01	.4454E+01	-.4530E-07	-.1991E+01	.9847E+00	-.1349E-06	-.1181E+01	-.2568E+00	.9931E+00
58	.1332E+01	.1832E+01	.5348E+01	-.5098E-07	-.1642E+01	.7768E+00	-.1524E-06	-.1720E+01	.2357E-02	.9952E+00
59	.1041E+01	.1967E+01	.7036E+01	-.6557E-07	-.1213E+01	.7143E+00	-.1983E-06	-.1836E+01	.2230E+00	.9969E+00
60	.8460E+00	.2261E+01	.8876E+01	-.9137E-07	-.8863E+00	.7201E+00	-.2812E-06	-.1527E+01	.2864E+00	.9982E+00
61	.7176E+00	.2644E+01	.1065E+02	-.1264E-06	-.6501E+00	.7294E+00	-.3955E-06	-.1247E+01	.2954E+00	.9994E+00
62	.6166E+00	.3084E+01	.1235E+02	-.1680E-06	-.4683E+00	.7171E+00	-.5337E-06	-.1036E+01	.2691E+00	.1000E+01
63	.5325E+00	.3517E+01	.1401E+02	-.2123E-06	-.3279E+00	.6864E+00	-.6842E-06	-.8781E+00	.2144E+00	.1001E+01
64	.4623E+00	.3889E+01	.1565E+02	-.2543E-06	-.2225E+00	.6489E+00	-.8315E-06	-.7673E+00	.1602E+00	.1001E+01
65	.4005E+00	.4210E+01	.1733E+02	-.2917E-06	-.1420E+00	.6085E+00	-.9687E-06	-.6859E+00	.1186E+00	.1001E+01
66	.3449E+00	.4482E+01	.1908E+02	-.3232E-06	-.7465E-01	.5666E+00	-.1092E-05	-.6223E+00	.1033E+00	.1001E+01
67	.3049E+00	.4809E+01	.2093E+02	-.3390E-06	-.1312E-01	.5351E+00	-.1169E-05	-.5719E+00	.8849E-01	.1000E+01
68	.2813E+00	.5062E+01	.2283E+02	-.3365E-06	.3105E-01	.5289E+00	-.1187E-05	-.5170E+00	.2531E-00	.1000E+01
69	.2699E+00	.6608E+01	.2461E+02	-.3220E-06	.5894E-01	.5203E+00	-.1164E-05	-.4476E+00	.6282E+00	.1000E+01
70	.2614E+00	.9717E+01	.2614E+02	-.3093E-06	.8038E-01	.4941E+00	-.1145E-05	-.3634E+00	.1019E+01	.1000E+01
71	.2357E+00	.1440E+02	.2739E+02	-.3254E-06	.1108E+00	.4131E+00	-.1229E-05	-.2042E+00	.1366E+01	.1000E+01
72	.1932E+00	.2131E+02	.2788E+02	-.4779E-06	.1465E+00	.2684E+00	-.1836E-05	.4992E-01	.1410E+01	.1000E+01
73	.9018E-01	.2900E+02	.2687E+02	0.	.1236E+00	-.3076E-13	0.	.1578E+00	.7294E+00	.1000E+01

SECOND INDEX= 23

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9202E+00	.1001E+01	.1010E+01	-.1669E-01	.9991E+00	.9189E+00	.9916E+00	.3689E+01	-.1010E+01	.1669E-01	-.9306E-02
2	.9202E+00	.1001E+01	.1010E+01	-.1669E-01	.9991E+00	.9189E+00	.9916E+00	.3689E+01	-.1010E+01	.1669E-01	-.9306E-02
3	.9132E+00	.9958E+00	.1010E+01	-.1825E-01	.9930E+00	.9185E+00	.9905E+00	.3692E+01	-.1010E+01	.1825E-01	-.1013E-01
4	.8992E+00	.9854E+00	.1010E+01	-.2143E-01	.9809E+00	.9180E+00	.9886E+00	.3700E+01	-.1010E+01	.2143E-01	-.1175E-01
5	.8808E+00	.9714E+00	.1009E+01	-.2578E-01	.9649E+00	.9173E+00	.9861E+00	.3710E+01	-.1009E+01	.1134E-01	-.1390E-01
6	.8615E+00	.9564E+00	.1008E+01	-.3054E-01	.9480E+00	.9169E+00	.9838E+00	.3720E+01	-.1009E+01	-.3459E-03	-.1616E-01
7	.8447E+00	.9428E+00	.1008E+01	-.3492E-01	.9332E+00	.9173E+00	.9821E+00	.3729E+01	-.1009E+01	.2049E-02	-.1812E-01
8	.8327E+00	.9321E+00	.1008E+01	-.3829E-01	.9223E+00	.9189E+00	.9816E+00	.3735E+01	-.1009E+01	.5495E-02	-.1951E-01
9	.8262E+00	.9242E+00	.1009E+01	-.4040E-01	.9155E+00	.9225E+00	.9826E+00	.3736E+01	-.1009E+01	.7670E-02	-.2027E-01
10	.8234E+00	.9178E+00	.1010E+01	-.4149E-01	.9115E+00	.9284E+00	.9851E+00	.3734E+01	-.1010E+01	.8691E-02	-.2059E-01
11	.8210E+00	.9100E+00	.1011E+01	-.4224E-01	.9071E+00	.9369E+00	.9890E+00	.3729E+01	-.1012E+01	.9469E-02	-.2087E-01
12	.8147E+00	.8974E+00	.1013E+01	-.4357E-01	.8989E+00	.9479E+00	.9936E+00	.3726E+01	-.1014E+01	.1144E-01	-.2161E-01
13	.8002E+00	.8771E+00	.1016E+01	-.4641E-01	.8833E+00	.9614E+00	.9992E+00	.3727E+01	-.1018E+01	.1385E-01	-.2330E-01
14	.7752E+00	.8478E+00	.1019E+01	-.5142E-01	.8587E+00	.9768E+00	.1005E+01	.3736E+01	-.1021E+01	.2003E-01	-.2622E-01
15	.7404E+00	.8106E+00	.1023E+01	-.5877E-01	.8258E+00	.9934E+00	.1010E+01	.3752E+01	-.1030E+01	.3386E-01	-.3028E-01
16	.6999E+00	.7697E+00	.1026E+01	-.6780E-01	.7884E+00	.1010E+01	.1015E+01	.3775E+01	-.1029E+01	.3705E-01	-.3499E-01
17	.6609E+00	.7312E+00	.1030E+01	-.7689E-01	.7526E+00	.1024E+01	.1019E+01	.3801E+01	-.1032E+01	.2355E-01	-.3954E-01
18	.6319E+00	.7023E+00	.1032E+01	-.8359E-01	.7256E+00	.1036E+01	.1022E+01	.3820E+01	-.1035E+01	.9486E-02	-.4292E-01
19	.6217E+00	.6917E+00	.1033E+01	-.8484E-01	.7141E+00	.1046E+01	.1024E+01	.3824E+01	-.1040E+01	.2109E-01	-.4412E-01
20	.6366E+00	.6981E+00	.1033E+01	-.7869E-01	.7235E+00	.1053E+01	.1026E+01	.3796E+01	-.1037E+01	.2265E-02	-.4238E-01
21	.6793E+00	.7293E+00	.1031E+01	-.6516E-01	.7553E+00	.1057E+01	.1027E+01	.3745E+01	-.1018E+01	-.3804E-01	-.3740E-01
22	.7465E+00	.7806E+00	.1027E+01	-.4659E-01	.8069E+00	.1056E+01	.1027E+01	.3679E+01	-.1042E+01	.2817E-01	-.2957E-01
23	.8297E+00	.8437E+00	.1022E+01	-.2622E-01	.8695E+00	.1053E+01	.1027E+01	.3607E+01	-.1087E+01	.9867E-01	-.1986E-01
24	.9227E+00	.9127E+00	.1016E+01	-.5695E-02	.9372E+00	.1049E+01	.1025E+01	.3535E+01	-.1008E+01	-.1018E-01	-.9017E-02
25	.1025E+01	.9901E+00	.1010E+01	.1482E-01	.1014E+01	.1039E+01	.1025E+01	.3475E+01	-.8136E+00	-.2737E+00	.2899E-02
26	.1133E+01	.1078E+01	.1006E+01	.3436E-01	.1102E+01	.1021E+01	.1025E+01	.3436E+01	-.8136E+00	-.3059E+00	.1556E-01
27	.1235E+01	.1163E+01	.1004E+01	.5079E-01	.1188E+01	.9995E+00	.1025E+01	.3413E+01	-.8810E+00	-.2106E+00	.2735E-01
28	.1315E+01	.1230E+01	.1001E+01	.6303E-01	.1255E+01	.9840E+00	.1024E+01	.3395E+01	-.9214E+00	-.1518E+00	.3677E-01
29	.1374E+01	.1277E+01	.9983E+00	.7159E-01	.1300E+01	.9758E+00	.1023E+01	.3377E+01	-.9377E+00	-.1314E+00	.4357E-01
30	.1415E+01	.1307E+01	.9959E+00	.7750E-01	.1329E+01	.9724E+00	.1022E+01	.3361E+01	-.9471E+00	-.1197E+00	.4837E-01
31	.1440E+01	.1320E+01	.9938E+00	.8164E-01	.1340E+01	.9711E+00	.1021E+01	.3346E+01	-.9514E+00	-.1140E+00	.5186E-01
32	.1466E+01	.1342E+01	.9920E+00	.8448E-01	.1361E+01	.9714E+00	.1021E+01	.3331E+01	-.1001E+01	.2566E-01	.5440E-01
33	.1482E+01	.1350E+01	.9899E+00	.8630E-01	.1366E+01	.9739E+00	.1019E+01	.3319E+01	-.1114E+01	.2021E+00	.5619E-01
34	.1492E+01	.1350E+01	.9871E+00	.8730E-01	.1363E+01	.9803E+00	.1018E+01	.3299E+01	-.1203E+01	.2686E+00	.5736E-01
35	.1498E+01	.1344E+01	.9837E+00	.8766E-01	.1353E+01	.9900E+00	.1016E+01	.3274E+01	-.1090E+01	.1165E+00	.5807E-01
36	.1502E+01	.1338E+01	.9802E+00	.8755E-01	.1342E+01	.9991E+00	.1013E+01	.3251E+01	-.1023E+01	.4255E-01	.5853E-01
37	.1505E+01	.1335E+01	.9774E+00	.8714E-01	.1335E+01	.1005E+01	.1011E+01	.3234E+01	-.1082E+01	.1075E+00	.5890E-01
38	.1508E+01	.1335E+01	.9752E+00	.8663E-01	.1331E+01	.1007E+01	.1008E+01	.3224E+01	-.1061E+01	.8426E-01	.5925E-01
39	.1513E+01	.1340E+01	.9738E+00	.8631E-01	.1333E+01	.1004E+01	.1006E+01	.3221E+01	-.8398E+00	-.1410E+00	.5981E-01
40	.1521E+01	.1354E+01	.9737E+00	.8642E-01	.1345E+01	.9951E+00	.1004E+01	.3228E+01	-.8102E+00	-.1729E+00	.6080E-01
41	.1533E+01	.1373E+01	.9745E+00	.8694E-01	.1363E+01	.9836E+00	.1003E+01	.3241E+01	-.8561E+00	-.1270E+00	.6211E-01
42	.1544E+01	.1390E+01	.9753E+00	.8762E-01	.1380E+01	.9741E+00	.1003E+01	.3251E+01	-.8164E+00	-.1703E+00	.6342E-01
43	.1552E+01	.1399E+01	.9754E+00	.8815E-01	.1389E+01	.9704E+00	.1003E+01	.3254E+01	-.8013E+00	-.1896E+00	.6441E-01
44	.1556E+01	.1397E+01	.9745E+00	.8822E-01	.1387E+01	.9738E+00	.1003E+01	.3246E+01	-.8610E+00	-.1261E+00	.6478E-01
45	.1551E+01	.1385E+01	.9729E+00	.8738E-01	.1373E+01	.9832E+00	.1002E+01	.3231E+01	-.7979E+00	-.1953E+00	.6423E-01
46	.1535E+01	.1362E+01	.9713E+00	.8508E-01	.1349E+01	.9957E+00	.1002E+01	.3215E+01	-.7381E+00	-.2704E+00	.6236E-01
47	.1504E+01	.1331E+01	.9704E+00	.8066E-01	.1316E+01	.1008E+01	.1001E+01	.3206E+01	-.8032E+00	-.1987E+00	.5872E-01
48	.1454E+01	.1292E+01	.9711E+00	.7362E-01	.1277E+01	.1016E+01	.9999E+00	.3213E+01	-.7413E+00	-.2863E+00	.5300E-01
49	.1388E+01	.1247E+01	.9737E+00	.6383E-01	.1232E+01	.1019E+01	.9988E+00	.3237E+01	-.6717E+00	-.4279E+00	.4520E-01
50	.1308E+01	.1196E+01	.9779E+00	.5176E-01	.1183E+01	.1018E+01	.9979E+00	.3278E+01	-.7204E+00	-.3929E+00	.3589E-01
51	.1224E+01	.1144E+01	.9831E+00	.3852E-01	.1134E+01	.1013E+01	.9974E+00	.3330E+01	-.7611E+00	-.3689E+00	.2608E-01
52	.1145E+01	.1095E+01	.9884E+00	.2556E-01	.1087E+01	.1008E+01	.9972E+00	.3384E+01	-.7934E+00	-.3586E+00	.1693E-01
53	.1081E+01	.1054E+01	.9930E+00	.1434E-01	.1049E+01	.1004E+01	.9975E+00	.3433E+01	-.7798E+00	-.6779E+00	.9389E-02
54	.1033E+01	.1023E+01	.9966E+00	.5806E-02	.1020E+01	.1000E+01	.9980E+00	.3471E+01	-.9803E+00	-.1081E+01	.3903E-02
55	.1005E+01	.1004E+01	.9989E+00	.4426E-03	.1003E+01	.9987E+00	.9986E+00	.3495E+01	-.1088E+01	-.1137E+01	5401E-03
56	.9910E+00	.9948E+00	.1000E+01	-.2060E-02	.9943E+00	.9982E+00	.9992E+00	.3508E+01	-.1310E+01	-.1361E+01	-.1054E-02
57	.9866E+00	.9917E+00	.1001E+01	-.2758E-02	.9918E+00	.9983E+00	.9997E+00	.3512E+01	-.1799E+01	-.1891E+01	-.1560E-02
58	.9868E+00	.9916E+00	.1001E+01	-.2591E-02	.9922E+00	.9985E+00	.1000E+01	.3512E+01	-.2855E+01	-.3007E+01	-.1544E-02
59	.9895E+00	.9932E+00	.1001E+01	-.1916E-02	.9941E+00	.9989E+00	.1001E+01	.3511E+01	-.2962E+01	-.3186E+01	-.1230E-02
60	.9938E+00	.9960E+00	.1001E+01	-.9457E-03	.9969E+00	.9994E+00	.1001E+01	.3507E+01	-.2265E+01	-.2572E+01	-.7193E-03
61	.9982E+00	.9988E+00	.1001E+01	-.6839E-04	.9995E+00	.9999E+00	.1001E+01	.3503E+01	-.1600E+01	-.2003E+01	-.2052E-03
62	.1001E+01	.1001E+01	.1000E+01	.4489E-03	.1001E+01	.1000E+01	.1000E+01	.3500E+01	-.1093E+01	-.1596E+01	.1515E-03

63	.1003E+01	.1002E+01	.9999E+00	.6090E-03	.1002E+01	.1000E+01	.1000E+01	.3498E+01	-.7435E+00	-.1338E+01	.3139E-03
64	.1003E+01	.1002E+01	.9998E+00	.5559E-03	.1002E+01	.1000E+01	.9999E+00	.3497E+01	-.5178E+00	-.1187E+01	.3337E-03
65	.1002E+01	.1002E+01	.9998E+00	.4313E-03	.1001E+01	.1000E+01	.9999E+00	.3498E+01	-.3618E+00	-.1098E+01	.2839E-03
66	.1002E+01	.1001E+01	.9998E+00	.3172E-03	.1001E+01	.1000E+01	.9999E+00	.3498E+01	-.2429E+00	-.1053E+01	.2190E-03
67	.1001E+01	.1001E+01	.9999E+00	.2422E-03	.1001E+01	.1000E+01	.9999E+00	.3499E+01	-.8369E-01	-.1011E+01	.1663E-03
68	.1001E+01	.1001E+01	.9999E+00	.2052E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	.4931E-01	-.9817E+00	.1336E-03
69	.1001E+01	.1001E+01	.1000E+01	.1937E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	.1479E+00	-.8857E+00	.1180E-03
70	.1001E+01	.1001E+01	.1000E+01	.1949E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	.2727E+00	-.7505E+00	.1133E-03
71	.1001E+01	.1001E+01	.1000E+01	.1995E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	.5667E+00	-.4517E+00	.1135E-03
72	.1001E+01	.1001E+01	.1000E+01	.2027E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	.9601E+00	-.4333E-01	.1148E-03
73	.1001E+01	.1001E+01	.1000E+01	.2027E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	.1005E+01	.9698E-01	.1149E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.6155E+00	.9000E+02	.1020E+01	0.	-.2500E+00	-.1679E-11	0.	.9052E-11	-.2462E+01	.9193E+00
2	.6155E+00	.8600E+02	.1020E+01	.8501E-06	-.2500E+00	.1616E-08	.2482E-05	.2991E-11	-.2462E+01	.9193E+00
3	.6155E+00	.8200E+02	.1020E+01	.6469E-06	-.2500E+00	.6959E-08	.1858E-05	-.6560E-14	-.2462E+01	.9170E+00
4	.6155E+00	.7800E+02	.1020E+01	.6243E-06	-.2500E+00	.2750E-07	.1770E-05	.6560E-14	-.2462E+01	.9126E+00
5	.6155E+00	.7400E+02	.1020E+01	.5925E-06	-.2500E+00	.1076E-06	.1688E-05	-.3522E-01	-.2462E+01	.9067E+00
6	.6346E+00	.7000E+02	.1135E+01	.5118E-06	-.2500E+00	.4389E-06	.1503E-05	-.7775E-01	-.2538E+01	.9007E+00
7	.6580E+00	.6600E+02	.1265E+01	.3730E-06	-.2500E+00	.1874E-05	.1171E-05	-.8583E-01	-.2632E+01	.8959E+00
8	.6834E+00	.6200E+02	.1396E+01	.1581E-06	-.2500E+00	.8403E-05	.6162E-06	-.8892E-01	-.2733E+01	.8934E+00
9	.7110E+00	.5800E+02	.1526E+01	-.1381E-06	-.2500E+00	.3971E-04	-.2064E-06	-.9227E-01	-.2844E+01	.8939E+00
10	.7412E+00	.5400E+02	.1655E+01	-.4989E-06	-.2501E+00	.1986E-03	-.1271E-05	-.9628E-01	-.2963E+01	.8971E+00
11	.7745E+00	.5000E+02	.1785E+01	-.8868E-06	-.2506E+00	.1055E-02	-.2483E-05	-.1001E+00	-.3090E+01	.9022E+00
12	.8213E+00	.4602E+02	.1914E+01	-.1234E-05	-.2538E+00	.6009E-02	-.3641E-05	-.1025E+00	-.3233E+01	.9078E+00
13	.9747E+00	.4213E+02	.2035E+01	-.1339E-05	-.2862E+00	.3799E-01	-.4113E-05	-.1088E+00	-.3391E+01	.9123E+00
14	.1184E+01	.3906E+02	.2137E+01	-.1286E-05	-.3356E+00	.2511E-01	-.4098E-05	-.1084E+00	-.3519E+01	.9144E+00
15	.1467E+01	.3619E+02	.2218E+01	-.1120E-05	-.3976E+00	.7849E-01	-.3713E-05	-.9118E-01	-.3672E+01	.9134E+00
16	.1774E+01	.3406E+02	.2261E+01	-.9407E-06	-.4811E+00	.3466E-01	-.3263E-05	-.1103E+00	-.3679E+01	.9094E+00
17	.1869E+01	.3204E+02	.2342E+01	-.8617E-06	-.4997E+00	.2349E-01	-.3148E-05	-.1932E+00	-.3732E+01	.9038E+00
18	.1978E+01	.3007E+02	.2468E+01	-.7534E-06	-.5154E+00	.4321E-01	-.2918E-05	-.2736E+00	-.3814E+01	.8998E+00
19	.2185E+01	.2818E+02	.2619E+01	-.6114E-06	-.5470E+00	.1216E+00	-.2525E-05	-.2440E+00	-.3941E+01	.9013E+00
20	.2955E+01	.2646E+02	.2691E+01	-.4028E-06	-.6821E+00	.3977E+00	-.1777E-05	-.3082E+00	-.4152E+01	.9120E+00
21	.4120E+01	.2537E+02	.2828E+01	-.2631E-06	-.9406E+00	.4977E+00	-.1232E-05	-.4063E+00	-.4165E+01	.9315E+00
22	.4803E+01	.2444E+02	.2889E+01	-.2142E-06	-.1079E+01	.6654E+00	-.1048E-05	-.9541E-01	-.4395E+01	.9563E+00
23	.5939E+01	.2354E+02	.2868E+01	-.1716E-06	-.1158E+01	.1006E+01	-.8637E-06	.2371E+00	-.5336E+01	.9835E+00
24	.8446E+01	.2264E+02	.2809E+01	-.1230E-06	-.1360E+01	.1780E+01	-.6306E-06	-.7210E-01	-.6116E+01	.1011E+01
25	.1070E+02	.2209E+02	.2885E+01	-.9823E-07	-.1769E+01	.2167E+01	-.5130E-06	-.9653E+00	-.4868E+01	.1035E+01
26	.1292E+02	.2173E+02	.2989E+01	-.7911E-07	-.2340E+01	.2287E+01	-.4242E-06	-.1047E+01	-.4497E+01	.1052E+01
27	.1414E+02	.2140E+02	.3047E+01	-.6707E-07	-.2765E+01	.2170E+01	-.3736E-06	-.6098E+00	-.4636E+01	.1062E+01
28	.1464E+02	.2108E+02	.3075E+01	-.5815E-07	-.3034E+01	.1941E+01	-.3408E-06	-.3256E+00	-.4617E+01	.1069E+01
29	.1456E+02	.2076E+02	.3091E+01	-.5168E-07	-.3142E+01	.1671E+01	-.3219E-06	-.2145E+00	-.4521E+01	.1076E+01
30	.1399E+02	.2045E+02	.3105E+01	-.4731E-07	-.3099E+01	.1403E+01	-.3156E-06	-.1481E+00	-.4446E+01	.1082E+01
31	.1271E+02	.2013E+02	.3112E+01	-.4540E-07	-.2870E+01	.1155E+01	-.3271E-06	.2206E+00	-.4518E+01	.1088E+01
32	.1118E+02	.1974E+02	.3070E+01	-.4417E-07	-.2536E+01	.1088E+01	-.3486E-06	.4985E+00	-.4622E+01	.1093E+01
33	.8758E+01	.1930E+02	.3023E+01	-.4505E-07	-.1967E+01	.1006E+01	-.4067E-06	.1254E+01	-.5095E+01	.1098E+01
34	.7923E+01	.1858E+02	.2784E+01	-.3281E-07	-.1599E+01	.1466E+01	-.3881E-06	.1559E+01	-.6386E+01	.1105E+01
35	.8084E+01	.1769E+02	.2630E+01	-.1204E-07	-.1384E+01	.1980E+01	-.3040E-06	.1051E+01	-.7347E+01	.1114E+01
36	.8238E+01	.1676E+02	.2524E+01	.7628E-08	-.1321E+01	.2326E+01	-.2188E-06	.8195E+00	-.7679E+01	.1123E+01
37	.6064E+01	.1583E+02	.2431E+01	.3226E-07	-.9650E+00	.1897E+01	-.1950E-06	.1059E+01	-.8366E+01	.1128E+01
38	.6308E+01	.1400E+02	.2174E+01	.4418E-07	-.8095E+00	.2520E+01	-.1049E-06	.1241E+01	-.1166E+02	.1130E+01
39	.5414E+01	.1213E+02	.2037E+01	.5675E-07	-.7453E+00	.2532E+01	-.4811E-07	.4964E+00	-.8950E+01	.1129E+01
40	.4750E+01	.1070E+02	.1991E+01	.6529E-07	-.7949E+00	.2410E+01	.2195E-07	.2710E+00	-.6798E+01	.1123E+01
41	.4181E+01	.9268E+01	.1923E+01	.7301E-07	-.8188E+00	.2288E+01	.1029E-06	.3083E+00	-.5968E+01	.1116E+01
42	.4076E+01	.7842E+01	.1844E+01	.6796E-07	-.9057E+00	.2397E+01	.1535E-06	.1660E+00	-.4940E+01	.1111E+01
43	.4086E+01	.6844E+01	.1842E+01	.4760E-07	-.1047E+01	.2430E+01	.1372E-06	.6640E-01	-.4057E+01	.1110E+01
44	.3921E+01	.5856E+01	.1811E+01	.2103E-07	-.1112E+01	.2367E+01	.8350E-07	.1552E+00	-.3858E+01	.1113E+01
45	.4301E+01	.4876E+01	.1762E+01	-.6223E-08	-.1313E+01	.2647E+01	.9145E-08	.2422E-02	-.3282E+01	.1120E+01
46	.4837E+01	.4330E+01	.1810E+01	-.2157E-07	-.1652E+01	.2894E+01	-.3957E-07	-.1744E+00	-.2623E+01	.1127E+01
47	.4816E+01	.3792E+01	.1835E+01	-.3045E-07	-.1787E+01	.2807E+01	-.7045E-07	-.8326E-01	-.2564E+01	.1130E+01
48	.5410E+01	.3265E+01	.1845E+01	-.2910E-07	-.2148E+01	.3095E+01	-.7361E-07	-.2610E+00	-.2143E+01	.1126E+01
49	.6204E+01	.3000E+01	.1931E+01	-.2369E-07	-.2729E+01	.3400E+01	-.6279E-07	-.5187E+00	-.1627E+01	.1113E+01
50	.6044E+01	.2741E+01	.2012E+01	-.2061E-07	-.2918E+01	.3188E+01	-.5601E-07	-.4801E+00	-.1547E+01	.1093E+01
51	.5817E+01	.2488E+01	.2090E+01	-.1697E-07	-.3063E+01	.2963E+01	-.4687E-07	-.4550E+00	-.1459E+01	.1069E+01
52	.5539E+01	.2239E+01	.2168E+01	-.1320E-07	-.3171E+01	.2734E+01	-.3693E-07	-.4447E+00	-.1363E+01	.1046E+01

53	.5665E+01	.1995E+01	.2251E+01	-.8709E-08	-.3525E+01	.2719E+01	-.2458E-07	-.8551E+00	-.9477E+00	.1025E+01
54	.5940E+01	.1905E+01	.2470E+01	-.5088E-08	-.4025E+01	.2668E+01	-.1439E-07	-.1331E+01	-.5936E+00	.1010E+01
55	.5170E+01	.1796E+01	.2699E+01	-.3359E-08	-.3828E+01	.2134E+01	-.9356E-08	-.1342E+01	-.6023E+00	.1000E+01
56	.4176E+01	.1672E+01	.2989E+01	-.2041E-08	-.3351E+01	.1549E+01	-.5344E-08	-.1541E+01	-.5339E+00	.9961E+00
57	.3162E+01	.1540E+01	.3437E+01	-.2120E-09	-.2723E+01	.1039E+01	.3746E-09	-.2050E+01	-.3787E+00	.9949E+00
58	.2452E+01	.1432E+01	.4286E+01	.2083E-08	-.2210E+01	.7399E+00	.7690E-08	-.3161E+01	-.5131E-01	.9951E+00
59	.1853E+01	.1498E+01	.6015E+01	.3201E-08	-.1618E+01	.6535E+00	.1159E-07	-.3380E+01	.2199E+00	.9962E+00
60	.1457E+01	.1670E+01	.7935E+01	.8804E-09	-.1186E+01	.6551E+00	.4802E-08	-.2764E+01	.2983E+00	.9978E+00
61	.1166E+01	.1907E+01	.9809E+01	-.5401E-08	-.8560E+00	.6625E+00	-.1444E-07	-.2157E+01	.3072E+00	.9995E+00
62	.9374E+00	.2196E+01	.1163E+02	-.1507E-07	-.5985E+00	.6527E+00	-.4473E-07	-.1689E+01	.2762E+00	.1001E+01
63	.7772E+00	.2497E+01	.1341E+02	-.2639E-07	-.4157E+00	.6327E+00	-.8106E-07	-.1374E+01	.2214E+00	.1001E+01
64	.6652E+00	.2766E+01	.1517E+02	-.3691E-07	-.2906E+00	.6060E+00	-.1158E-06	-.1176E+01	.1628E+00	.1001E+01
65	.5688E+00	.2986E+01	.1695E+02	-.4581E-07	-.1975E+00	.5688E+00	-.1463E-06	-.1038E+01	.1090E+00	.1001E+01
66	.4836E+00	.3150E+01	.1882E+02	-.5252E-07	-.1243E+00	.5260E+00	-.1710E-06	-.9419E+00	.9557E-01	.1001E+01
67	.4200E+00	.3381E+01	.2084E+02	-.5644E-07	-.4094E-01	.4938E+00	-.1884E-06	-.8573E+00	.8092E-01	.1000E+01
68	.3970E+00	.3535E+01	.2290E+02	-.5686E-07	.2302E-01	.4994E+00	-.1965E-06	-.7798E+00	.3300E+00	.1000E+01
69	.3964E+00	.3044E+01	.2477E+02	-.5837E-07	.5100E-01	.5103E+00	-.2101E-06	-.6848E+00	.9204E+00	.1000E+01
70	.3983E+00	.3178E+01	.2636E+02	-.6393E-07	.6443E-01	.5050E+00	-.2389E-06	-.5875E+00	.1577E+01	.1000E+01
71	.3631E+00	.1296E+02	.2772E+02	-.7846E-07	.9348E-01	.4317E+00	-.3015E-06	-.3717E+00	.2168E+01	.1000E+01
72	.2910E+00	.2012E+02	.2840E+02	-.1406E-06	.1197E+00	.2890E+00	-.5464E-06	-.4079E-01	.2333E+01	.1000E+01
73	.1092E+00	.2900E+02	.2800E+02	0.	.1026E+00	-.1863E-13	0.	.1030E+00	.1064E+01	.1000E+01

SECOND INDEX= 24

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9364E+00	.1014E+01	.1010E+01	-.1314E-01	.1012E+01	.9179E+00	.9916E+00	.3678E+01	-.1010E+01	.1314E-01	-.7412E-02
2	.9364E+00	.1014E+01	.1010E+01	-.1314E-01	.1012E+01	.9179E+00	.9916E+00	.3678E+01	-.1010E+01	.1314E-01	-.7412E-02
3	.9274E+00	.1007E+01	.1009E+01	-.1509E-01	.1004E+01	.9180E+00	.9904E+00	.3682E+01	-.1009E+01	.1509E-01	-.8467E-02
4	.9096E+00	.9933E+00	.1009E+01	-.1903E-01	.9880E+00	.9183E+00	.9882E+00	.3690E+01	-.1009E+01	.1903E-01	-.1054E-01
5	.8865E+00	.9747E+00	.1008E+01	-.2436E-01	.9671E+00	.9188E+00	.9853E+00	.3700E+01	-.1008E+01	.8717E-02	-.1324E-01
6	.8626E+00	.9553E+00	.1007E+01	-.3011E-01	.9455E+00	.9196E+00	.9826E+00	.3711E+01	-.1008E+01	-.3358E-02	-.1602E-01
7	.8425E+00	.9382E+00	.1007E+01	-.3525E-01	.9271E+00	.9212E+00	.9807E+00	.3720E+01	-.1007E+01	-.3866E-03	-.1836E-01
8	.8293E+00	.9255E+00	.1006E+01	-.3894E-01	.9141E+00	.9243E+00	.9801E+00	.3724E+01	-.1007E+01	.3365E-02	-.1990E-01
9	.8238E+00	.9172E+00	.1007E+01	-.4082E-01	.9069E+00	.9298E+00	.9812E+00	.3721E+01	-.1007E+01	.5307E-02	-.2054E-01
10	.8243E+00	.9116E+00	.1007E+01	-.4118E-01	.9036E+00	.9383E+00	.9840E+00	.3711E+01	-.1008E+01	.5624E-02	-.2049E-01
11	.8268E+00	.9053E+00	.1008E+01	-.4078E-01	.9007E+00	.9503E+00	.9881E+00	.3697E+01	-.1009E+01	.5241E-02	-.2020E-01
12	.8261E+00	.8945E+00	.1010E+01	-.4070E-01	.8941E+00	.9657E+00	.9933E+00	.3681E+01	-.1011E+01	.5682E-02	-.2028E-01
13	.8170E+00	.8753E+00	.1012E+01	-.4210E-01	.8794E+00	.9845E+00	.9989E+00	.3669E+01	-.1013E+01	.6730E-02	-.2135E-01
14	.7955E+00	.8454E+00	.1014E+01	-.4597E-01	.8541E+00	.1006E+01	.1005E+01	.3663E+01	-.1016E+01	.1159E-01	-.2385E-01
15	.7608E+00	.8050E+00	.1017E+01	-.5287E-01	.8176E+00	.1031E+01	.1010E+01	.3665E+01	-.1023E+01	.2610E-01	-.2790E-01
16	.7158E+00	.7575E+00	.1019E+01	-.6266E-01	.7731E+00	.1056E+01	.1014E+01	.3677E+01	-.1022E+01	.3136E-01	-.3315E-01
17	.6673E+00	.7089E+00	.1022E+01	-.7419E-01	.7267E+00	.1080E+01	.1018E+01	.3696E+01	-.1024E+01	.1908E-01	-.3880E-01
18	.6243E+00	.6673E+00	.1024E+01	-.8515E-01	.6864E+00	.1100E+01	.1021E+01	.3718E+01	-.1028E+01	.8545E-02	-.4381E-01
19	.5971E+00	.6405E+00	.1025E+01	-.9211E-01	.6604E+00	.1114E+01	.1023E+01	.3732E+01	-.1033E+01	.2199E-01	-.4699E-01
20	.5945E+00	.6345E+00	.1025E+01	-.9162E-01	.6549E+00	.1124E+01	.1024E+01	.3722E+01	-.1035E+01	.1104E-01	-.4729E-01
21	.6220E+00	.6528E+00	.1024E+01	-.8214E-01	.6734E+00	.1130E+01	.1025E+01	.3682E+01	-.1018E+01	-.2116E-01	-.4408E-01
22	.6784E+00	.6940E+00	.1020E+01	-.6528E-01	.7146E+00	.1131E+01	.1025E+01	.3619E+01	-.1038E+01	.3067E-01	-.3751E-01
23	.7569E+00	.7510E+00	.1015E+01	-.4439E-01	.7707E+00	.1130E+01	.1025E+01	.3541E+01	-.1071E+01	.7904E-01	-.2835E-01
24	.8514E+00	.8184E+00	.1008E+01	-.2173E-01	.8367E+00	.1127E+01	.1024E+01	.3461E+01	-.9983E+00	-.1222E-01	-.1733E-01
25	.9582E+00	.8986E+00	.1003E+01	.1351E-02	.9160E+00	.1113E+01	.1023E+01	.3399E+01	-.8189E+00	-.2433E+00	-.4874E-02
26	.1071E+01	.9929E+00	.1000E+01	.2275E-01	.1011E+01	.1081E+01	.1023E+01	.3372E+01	-.8310E+00	-.2615E+00	.8230E-02
27	.1173E+01	.1085E+01	.9990E+00	.4013E-01	.1104E+01	.1047E+01	.1023E+01	.3365E+01	-.9059E+00	-.1609E+00	.2017E-01
28	.1254E+01	.1157E+01	.9974E+00	.5309E-01	.1177E+01	.1023E+01	.1023E+01	.3358E+01	-.9429E+00	-.1084E+00	.2967E-01
29	.1316E+01	.1208E+01	.9952E+00	.6270E-01	.1227E+01	.1010E+01	.1022E+01	.3343E+01	-.9532E+00	-.9841E-01	.3688E-01
30	.1366E+01	.1245E+01	.9927E+00	.7017E-01	.1263E+01	.1005E+01	.1021E+01	.3325E+01	-.9587E+00	-.9503E-01	.4265E-01
31	.1408E+01	.1275E+01	.9903E+00	.7617E-01	.1292E+01	.1002E+01	.1021E+01	.3308E+01	-.9844E+00	-.2425E-01	.4754E-01
32	.1442E+01	.1297E+01	.9878E+00	.8079E-01	.1312E+01	.1002E+01	.1020E+01	.3290E+01	-.1000E+01	.2064E-01	.5158E-01
33	.1469E+01	.1310E+01	.9846E+00	.8406E-01	.1322E+01	.1006E+01	.1018E+01	.3267E+01	-.1069E+01	.1434E+00	.5470E-01
34	.1487E+01	.1310E+01	.9801E+00	.8603E-01	.1318E+01	.1019E+01	.1016E+01	.3232E+01	-.1146E+01	.1975E+00	.5682E-01
35	.1498E+01	.1300E+01	.9744E+00	.8685E-01	.1301E+0	.1038E+01	.1014E+01	.3190E+01	-.1041E+01	.6974E-01	.5804E-01
36	.1503E+01	.1287E+01	.9691E+00	.8680E-01	.1283E+01	.1056E+01	.1011E+01	.3151E+01	-.9966E+00	.2558E-01	.5870E-01
37	.1507E+01	.1280E+01	.9651E+00	.8625E-01	.1270E+01	.1066E+01	.1008E+01	.3126E+01	-.1034E+01	.6942E-01	.5907E-01
38	.1509E+01	.1279E+01	.9626E+00	.8557E-01	.1266E+01	.1069E+01	.1005E+01	.3114E+01	-.1015E+01	.4926E-01	.5934E-01
39	.1513E+01	.1289E+01	.9621E+00	.8524E-01	.1272E+01	.1061E+01	.1003E+01	.3120E+01	-.8665E+00	-.1017E+00	.5984E-01
40	.1522E+01	.1312E+01	.9642E+00	.8553E-01	.1295E+01	.1041E+01	.1002E+01	.3146E+01	-.8571E+00	-.1148E+00	.6086E-01
41	.1534E+01	.1344E+01	.9681E+00	.8631E-01	.1329E+01	.1014E+01	.1002E+01	.3185E+01	-.8962E+00	-.7882E-01	.6222E-01

42	.1544E+01	.1376E+01	.9722E+00	.8722E-01	.1364E+01	.9882E+00	.1002E+01	.3224E+01	-.8693E+00	-.1119E+00	.6349E-01
43	.1552E+01	.1398E+01	.9752E+00	.8800E-01	.1388E+01	.9709E+00	.1003E+01	.3253E+01	-.8606E+00	-.1266E+00	.6438E-01
44	.1556E+01	.1407E+01	.9764E+00	.8851E-01	.1398E+01	.9648E+00	.1003E+01	.3263E+01	-.9064E+00	-.7975E-01	.6481E-01
45	.1556E+01	.1402E+01	.9759E+00	.8865E-01	.1393E+01	.9695E+00	.1004E+01	.3256E+01	-.8566E+00	-.1345E+00	.6481E-01
46	.1551E+01	.1386E+01	.9741E+00	.8816E-01	.1377E+01	.9817E+00	.1004E+01	.3236E+01	-.8047E+00	-.1973E+00	.6428E-01
47	.1539E+01	.1364E+01	.9720E+00	.8651E-01	.1353E+01	.9964E+00	.1003E+01	.3216E+01	-.8543E+00	-.1414E+00	.6285E-01
48	.1514E+01	.1337E+01	.9708E+00	.8298E-01	.1324E+01	.1009E+01	.1003E+01	.3204E+01	-.7988E+00	-.2135E+00	.5996E-01
49	.1472E+01	.1304E+01	.9713E+00	.7697E-01	.1291E+01	.1016E+01	.1002E+01	.3209E+01	-.7264E+00	-.3381E+00	.5510E-01
50	.1413E+01	.1264E+01	.9736E+00	.6832E-01	.1251E+01	.1018E+01	.1000E+01	.3231E+01	-.7709E+00	-.2997E+00	.4815E-01
51	.1340E+01	.1218E+01	.9774E+00	.5745E-01	.1207E+01	.1016E+01	.9995E+00	.3266E+01	-.8078E+00	-.2706E+00	.3961E-01
52	.1260E+01	.1168E+01	.9820E+00	.4513E-01	.1159E+01	.1013E+01	.9988E+00	.3314E+01	-.8374E+00	-.2515E+00	.3029E-01
53	.1181E+01	.1118E+01	.9868E+00	.3226E-01	.1111E+01	.1010E+01	.9983E+00	.3363E+01	-.7811E+00	-.6141E+00	.2110E-01
54	.1109E+01	.1072E+01	.9912E+00	.1977E-01	.1066E+01	.1006E+01	.9979E+00	.3411E+01	-.1050E+01	-.1169E+01	.1276E-01
55	.1053E+01	.1035E+01	.9948E+00	.9356E-02	.1031E+01	.1003E+01	.9977E+00	.3453E+01	-.1200E+01	-.1264E+01	.6170E-02
56	.1016E+01	.1011E+01	.9976E+00	.2410E-02	.1009E+01	.1000E+01	.9980E+00	.3483E+01	-.1531E+01	-.1593E+01	.1873E-02
57	.9956E+00	.9977E+00	.9995E+00	-.1391E-02	.9965E+00	.9988E+00	.9987E+00	.3502E+01	-.2245E+01	-.2327E+01	-.5180E-03
58	.9865E+00	.9917E+00	.1001E+01	-.2905E-02	.9917E+00	.9981E+00	.9995E+00	.3512E+01	-.3744E+01	-.3855E+01	-.1570E-02
59	.9868E+00	.9917E+00	.1001E+01	-.2520E-02	.9926E+00	.9984E+00	.1000E+01	.3513E+01	-.3869E+01	-.4029E+01	-.1535E-02
60	.9925E+00	.9952E+00	.1001E+01	-.1173E-02	.9963E+00	.9992E+00	.1001E+01	.3509E+01	-.2912E+01	-.3138E+01	-.8700E-03
61	.9983E+00	.9989E+00	.1001E+01	-.3620E-04	.9996E+00	.9999E+00	.1001E+01	.3503E+01	-.2029E+01	-.2338E+01	-.1973E-03
62	.1002E+01	.1001E+01	.1000E+01	.4821E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	-.1372E+01	-.1778E+01	.1897E-03
63	.1003E+01	.1002E+01	.9998E+00	.5480E-03	.1002E+01	.1000E+01	.1000E+01	.3498E+01	-.9259E+00	-.1430E+01	.3091E-03
64	.1002E+01	.1002E+01	.9997E+00	.4305E-03	.1001E+01	.1000E+01	.9999E+00	.3498E+01	-.6345E+00	-.1230E+01	.2853E-03
65	.1002E+01	.1001E+01	.9998E+00	.2953E-03	.1001E+01	.1000E+01	.9999E+00	.3498E+01	-.4474E+00	-.1121E+01	.2135E-03
66	.1001E+01	.1001E+01	.9999E+00	.2021E-03	.1001E+01	.1000E+01	.9999E+00	.3499E+01	-.3414E+00	-.1076E+01	.1507E-03
67	.1001E+01	.1001E+01	.9999E+00	.1562E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	-.1262E+00	-.1015E+01	.1112E-03
68	.1001E+01	.1001E+01	.1000E+01	.1465E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	.4357E-01	-.9853E+00	.9478E-04
69	.1001E+01	.1001E+01	.1000E+01	.1590E-03	.1001E+01	.1000E+01	.1000E+01	.3500E+01	.1355E+00	-.8958E+00	.9513E-04
70	.1001E+01	.1001E+01	.1000E+01	.1807E-03	.1001E+01	.1000E+01	.1000E+01	.3500E+01	.2320E+00	-.7874E+00	.1041E-03
71	.1001E+01	.1001E+01	.1000E+01	.2007E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	.5111E+00	-.5058E+00	.1143E-03
72	.1001E+01	.1001E+01	.1000E+01	.2117E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	.8780E+00	-.1305E+00	.1204E-03
73	.1001E+01	.1001E+01	.1000E+01	.2117E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	.1000E+01	.2952E-01	.1204E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.8746E+00	.9000E+02	.6818E+00	0.	-.2500E+00	-.1193E-11	0.	.1098E-10	-.3499E+01	.9232E+00
2	.8746E+00	.8600E+02	.6818E+00	.1129E-06	-.2500E+00	.1704E-08	-.3836E-06	.3626E-11	-.3499E+01	.9232E+00
3	.8746E+00	.8200E+02	.6818E+00	.1128E-06	-.2500E+00	.7308E-08	-.2077E-06	-.1864E-13	-.3499E+01	.9207E+00
4	.8746E+00	.7800E+02	.6818E+00	.1387E-06	-.2500E+00	.2880E-07	-.9948E-07	-.1554E-14	-.3499E+01	.9158E+00
5	.8746E+00	.7400E+02	.6818E+00	.1311E-06	-.2500E+00	.1120E-06	-.9742E-07	-.5429E-01	-.3499E+01	.9094E+00
6	.8994E+00	.7000E+02	.8060E+00	.6373E-07	-.2500E+00	.4559E-06	-.2673E-06	-.1196E+00	-.3598E+01	.9030E+00
7	.9298E+00	.6600E+02	.9477E+00	-.7154E-07	-.2500E+00	.1947E-05	-.6462E-06	-.1317E+00	-.3719E+01	.8980E+00
8	.9625E+00	.6200E+02	.1089E+01	-.2848E-06	-.2500E+00	.8736E-05	-.1281E-05	-.1361E+00	-.3850E+01	.8961E+00
9	.9979E+00	.5800E+02	.1230E+01	-.5742E-06	-.2500E+00	.4131E-04	-.2179E-05	-.1408E+00	-.3991E+01	.8982E+00
10	.1037E+01	.5400E+02	.1371E+01	-.9098E-06	-.2501E+00	.2067E-03	-.3245E-05	-.1463E+00	-.4145E+01	.9042E+00
11	.1079E+01	.5000E+02	.1513E+01	-.1244E-05	-.2504E+00	.1102E-02	-.4327E-05	-.1517E+00	-.4307E+01	.9132E+00
12	.1135E+01	.4601E+02	.1653E+01	-.1509E-05	-.2527E+00	.6342E-02	-.5206E-05	-.1556E+00	-.4489E+01	.9236E+00
13	.1348E+01	.4209E+02	.1787E+01	-.1492E-05	-.2854E+00	.4320E-01	-.5151E-05	-.1644E+00	-.4698E+01	.9334E+00
14	.1628E+01	.3904E+02	.1897E+01	-.1355E-05	-.3347E+00	.2682E-01	-.4718E-05	-.1645E+00	-.4851E+01	.9410E+00
15	.2029E+01	.3614E+02	.1989E+01	-.1128E-05	-.3973E+00	.9064E-01	-.3996E-05	-.1361E+00	-.5075E+01	.9450E+00
16	.2459E+01	.3404E+02	.2031E+01	-.9196E-06	-.4855E+00	.3721E-01	-.3346E-05	-.1553E+00	-.5053E+01	.9449E+00
17	.2562E+01	.3203E+02	.2115E+01	-.8342E-06	-.4994E+00	.2474E-01	-.3144E-05	-.2759E+00	-.5118E+01	.9412E+00
18	.2679E+01	.3005E+02	.2246E+01	-.7231E-06	-.5099E+00	.4534E-01	-.2851E-05	-.3904E+00	-.5220E+01	.9355E+00
19	.2908E+01	.2813E+02	.2407E+01	-.5839E-06	-.5299E+00	.1300E+00	-.2429E-05	-.3705E+00	-.5396E+01	.9321E+00
20	.4133E+01	.2633E+02	.2501E+01	-.3559E-06	-.6603E+00	.4618E+00	-.1573E-05	-.4744E+00	-.5928E+01	.9370E+00
21	.5725E+01	.2526E+02	.2636E+01	-.2257E-06	-.9365E+00	.5428E+00	-.1059E-05	-.5737E+00	-.5787E+01	.9528E+00
22	.6560E+01	.2431E+02	.2702E+01	-.1778E-06	-.1040E+01	.7186E+00	-.8762E-06	-.2372E+00	-.6146E+01	.9774E+00
23	.8189E+01	.2339E+02	.2709E+01	-.1308E-06	-.1087E+01	.1101E+01	-.6694E-06	.7914E-01	-.7615E+01	.1008E+01
24	.1256E+02	.2245E+02	.2682E+01	-.7842E-07	-.1299E+01	.2057E+01	-.4168E-06	-.2619E+00	-.9252E+01	.1040E+01
25	.1632E+02	.2191E+02	.2750E+01	-.5611E-07	-.1841E+01	.2516E+01	-.3100E-06	-.1261E+01	-.7143E+01	.1066E+01
26	.1961E+02	.2158E+02	.2837E+01	-.4466E-07	-.2570E+01	.2576E+01	-.2547E-06	-.1265E+01	-.6362E+01	.1078E+01
27	.2092E+02	.2126E+02	.2879E+01	-.4055E-07	-.3038E+01	.2307E+01	-.2374E-06	-.6258E+00	-.6411E+01	.1081E+01
28	.2115E+02	.2096E+02	.2897E+01	-.3814E-07	-.3284E+01	.1953E+01	-.2302E-06	-.2673E+00	-.6281E+01	.1084E+01
29	.2064E+02	.2067E+02	.2904E+01	-.3624E-07	-.3345E+01	.1594E+01	-.2280E-06	-.1671E+00	-.6091E+01	.1090E+01
30	.1944E+02	.2037E+02	.2913E+01	-.3503E-07	-.3244E+01	.1250E+01	-.2323E-06	-.1149E+00	-.5950E+01	.1097E+01
31	.1682E+02	.2006E+02	.2916E+01	-.3583E-07	-.2867E+01	.9098E+00	-.2544E-06	.3221E+00	-.5968E+01	.1104E+01

32	.1443E+02	.1966E+02	.2874E+01	-.3542E-07	-.2440E+01	.9427E+00	-.2761E-06	.6187E+00	-.6155E+01	.1112E+01
33	.1070E+02	.1921E+02	.2831E+01	-.3729E-07	-.1776E+01	.8692E+00	-.3353E-06	.1359E+01	-.6689E+01	.1121E+01
34	.1083E+02	.1841E+02	.2620E+01	-.2469E-07	-.1467E+01	.1583E+01	-.2848E-06	.1832E+01	-.9356E+01	.1135E+01
35	.1137E+02	.1748E+02	.2492E+01	-.1266E-07	-.1306E+01	.2078E+01	-.2271E-06	.1290E+01	-.1076E+02	.1152E+01
36	.1176E+02	.1652E+02	.2393E+01	-.6597E-09	-.1285E+01	.2419E+01	-.1695E-06	.1123E+01	-.1127E+02	.1168E+01
37	.8473E+01	.1556E+02	.2301E+01	.2616E-07	-.9175E+00	.1910E+01	-.1184E-06	.1367E+01	-.1208E+02	.1177E+01
38	.8945E+01	.1367E+02	.2071E+01	.6074E-07	-.7734E+00	.2517E+01	.4551E-07	.1691E+01	-.1707E+02	.1180E+01
39	.7866E+01	.1174E+02	.1923E+01	.1044E-06	-.7560E+00	.2547E+01	.2212E-06	.8682E+00	-.1333E+02	.1174E+01
40	.6839E+01	.1028E+02	.1850E+01	.1161E-06	-.8180E+00	.2375E+01	.2977E-06	.5623E+00	-.9993E+01	.1160E+01
41	.5987E+01	.8822E+01	.1758E+01	.9127E-07	-.8318E+00	.2225E+01	.2487E-06	.5732E+00	-.8731E+01	.1141E+01
42	.6048E+01	.7364E+01	.1658E+01	.4918E-07	-.9414E+00	.2399E+01	.1427E-06	.3970E+00	-.7436E+01	.1123E+01
43	.6121E+01	.6362E+01	.1627E+01	.1767E-07	-.1104E+01	.2443E+01	.6249E-07	.2549E+00	-.6109E+01	.1110E+01
44	.5789E+01	.5368E+01	.1575E+01	-.3045E-08	-.1147E+01	.2339E+01	.1237E-07	.3388E+00	-.5741E+01	.1106E+01
45	.6652E+01	.4379E+01	.1510E+01	-.1732E-07	-.1403E+01	.2735E+01	-.3181E-07	.1608E+00	-.5055E+01	.1110E+01
46	.7773E+01	.3848E+01	.1527E+01	-.2073E-07	-.1844E+01	.3096E+01	-.4748E-07	-.6533E-01	-.4106E+01	.1119E+01
47	.7560E+01	.3323E+01	.1527E+01	-.2090E-07	-.1946E+01	.2928E+01	-.5183E-07	.3808E-01	-.3942E+01	.1128E+01
48	.8929E+01	.2806E+01	.1517E+01	-.1314E-07	-.2447E+01	.3391E+01	-.3293E-07	-.1789E+00	-.3402E+01	.1133E+01
49	.1098E+02	.2561E+01	.1567E+01	-.6623E-08	-.3342E+01	.3968E+01	-.1636E-07	-.5259E+00	-.2661E+01	.1130E+01
50	.1055E+02	.2321E+01	.1612E+01	-.3771E-08	-.3521E+01	.3643E+01	-.9005E-08	-.4644E+00	-.2516E+01	.1118E+01
51	.1006E+02	.2084E+01	.1655E+01	-.1978E-08	-.3653E+01	.3331E+01	-.4622E-08	-.4243E+00	-.2368E+01	.1100E+01
52	.9539E+01	.1850E+01	.1697E+01	-.6667E-09	-.3749E+01	.3036E+01	-.1412E-08	-.4046E+00	-.2217E+01	.1078E+01
53	.1045E+02	.1619E+01	.1740E+01	.5188E-09	-.4438E+01	.3206E+01	.1742E-08	-.1137E+01	-.1533E+01	.1056E+01
54	.1228E+02	.1557E+01	.1915E+01	.1191E-08	-.5673E+01	.3465E+01	.3587E-08	-.2163E+01	-.8441E+00	.1035E+01
55	.1075E+02	.1482E+01	.2092E+01	.1768E-08	-.5415E+01	.2712E+01	.5299E-08	-.2248E+01	-.8595E+00	.1017E+01
56	.8507E+01	.1397E+01	.2333E+01	.2391E-08	-.4635E+01	.1855E+01	.7169E-08	-.2719E+01	-.7471E+00	.1005E+01
57	.6270E+01	.1306E+01	.2731E+01	.3348E-08	-.3666E+01	.1141E+01	.9949E-08	-.3803E+01	-.5271E+00	.9978E+00
58	.4753E+01	.1229E+01	.3546E+01	.4530E-08	-.2922E+01	.7309E+00	.1361E-07	-.6080E+01	-.1057E+00	.9948E+00
59	.3449E+01	.1262E+01	.5290E+01	.6460E-08	-.2084E+01	.6150E+00	.1972E-07	-.6387E+01	.2296E+00	.9951E+00
60	.2596E+01	.1362E+01	.7249E+01	.8904E-08	-.1492E+01	.6087E+00	.2760E-07	-.5048E+01	.3195E+00	.9973E+00
61	.1986E+01	.1508E+01	.9179E+01	.1176E-07	-.1056E+01	.6137E+00	.3729E-07	-.3798E+01	.3272E+00	.9994E+00
62	.1528E+01	.1691E+01	.1107E+02	.1476E-07	-.7270E+00	.6059E+00	.4787E-07	-.2871E+01	.2909E+00	.1001E+01
63	.1220E+01	.1888E+01	.1294E+02	.1718E-07	-.4981E+00	.5909E+00	.5699E-07	-.2258E+01	.2293E+00	.1001E+01
64	.1016E+01	.2067E+01	.1478E+02	.1879E-07	-.3425E+00	.5711E+00	.6365E-07	-.1877E+01	.1633E+00	.1001E+01
65	.8653E+00	.2210E+01	.1663E+02	.2015E-07	-.2362E+00	.5433E+00	.6960E-07	-.1638E+01	.1033E+00	.1001E+01
66	.7289E+00	.2306E+01	.1856E+02	.2258E-07	-.1660E+00	.4969E+00	.7916E-07	-.1497E+01	.9031E-01	.1000E+01
67	.6123E+00	.2458E+01	.2074E+02	.2647E-07	-.5759E-01	.4596E+00	.9361E-07	-.1341E+01	.7366E-01	.1000E+01
68	.5946E+00	.2547E+01	.2294E+02	.2688E-07	.1965E-01	.4770E+00	.9528E-07	-.1227E+01	.4685E+00	.1000E+01
69	.6178E+00	.4034E+01	.2487E+02	.2355E-07	.4648E-01	.5064E+00	.8288E-07	-.1089E+01	.1432E+01	.1000E+01
70	.6370E+00	.7181E+01	.2647E+02	.1738E-07	.5420E-01	.5159E+00	.5935E-07	-.9674E+00	.2545E+01	.1000E+01
71	.5828E+00	.1202E+02	.2790E+02	.1079E-07	.8273E-01	.4462E+00	.3277E-07	-.6504E+00	.3537E+01	.1000E+01
72	.4452E+00	.1932E+02	.2870E+02	-.2563E-07	.1032E+00	.2917E+00	-.1060E-06	-.1886E+00	.3779E+01	.1000E+01
73	.1496E+00	.2900E+02	.2375E+02	0.	.9198E-01	0.	0.	.4768E-01	.1627E+01	.1000E+01

SECOND INDEX= 25

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9539E+00	.1017E+01	.1006E+01	-.9358E-02	.1013E+01	.9312E+00	.9911E+00	.3638E+01	-.1006E+01	.9358E-02	-.5375E-02
2	.9539E+00	.1017E+01	.1006E+01	-.9358E-02	.1013E+01	.9312E+00	.9911E+00	.3638E+01	-.1006E+01	.9358E-02	-.5375E-02
3	.9428E+00	.1008E+01	.1006E+01	-.1167E-01	.1003E+01	.9319E+00	.9897E+00	.3641E+01	-.1006E+01	.1167E-01	-.6666E-02
4	.9211E+00	.9905E+00	.1005E+01	-.1635E-01	.9829E+00	.9335E+00	.9872E+00	.3648E+01	-.1005E+01	.1635E-01	-.9201E-02
5	.8929E+00	.9669E+00	.1004E+01	-.2266E-01	.9566E+00	.9359E+00	.9839E+00	.3658E+01	-.1004E+01	.6319E-02	-.1249E-01
6	.8640E+00	.9425E+00	.1003E+01	-.2945E-01	.9298E+00	.9388E+00	.9808E+00	.3668E+01	-.1004E+01	-.5521E-02	-.1585E-01
7	.8404E+00	.9216E+00	.1002E+01	-.3540E-01	.9074E+00	.9422E+00	.9786E+00	.3676E+01	-.1003E+01	-.1847E-02	-.1861E-01
8	.8256E+00	.9067E+00	.1002E+01	-.3946E-01	.8922E+00	.9470E+00	.9780E+00	.3678E+01	-.1003E+01	.2273E-02	-.2033E-01
9	.8206E+00	.8975E+00	.1002E+01	-.4125E-01	.8841E+00	.9547E+00	.9792E+00	.3671E+01	-.1003E+01	.4106E-02	-.2092E-01
10	.8233E+00	.8919E+00	.1002E+01	-.4110E-01	.8807E+00	.9663E+00	.9821E+00	.3654E+01	-.1003E+01	.3942E-02	-.2061E-01
11	.8294E+00	.8861E+00	.1003E+01	-.3985E-01	.8782E+00	.9824E+00	.9865E+00	.3631E+01	-.1003E+01	.2711E-02	-.1990E-01
12	.8335E+00	.8762E+00	.1003E+01	-.3860E-01	.8723E+00	.1003E+01	.9919E+00	.3604E+01	-.1004E+01	.1867E-02	-.1942E-01
13	.8300E+00	.8582E+00	.1001E+01	-.3855E-01	.8587E+00	.1028E+01	.9977E+00	.3577E+01	-.1005E+01	.1538E-02	-.1983E-01
14	.8138E+00	.8293E+00	.1006E+01	-.4088E-01	.8340E+00	.1058E+01	.1004E+01	.3556E+01	-.1007E+01	.4674E-02	-.2172E-01
15	.7823E+00	.7884E+00	.1007E+01	-.4651E-01	.7966E+00	.1091E+01	.1009E+01	.3541E+01	-.1012E+01	.1865E-01	-.2539E-01
16	.7369E+00	.7373E+00	.1008E+01	-.5581E-01	.7483E+00	.1129E+01	.1014E+01	.3535E+01	-.1010E+01	.2461E-01	-.3068E-01
17	.6838E+00	.6822E+00	.1009E+01	-.6810E-01	.6948E+00	.1168E+01	.1017E+01	.3536E+01	-.1011E+01	.1227E-01	-.3688E-01
18	.6323E+00	.6319E+00	.1010E+01	-.8142E-01	.6455E+00	.1202E+01	.1020E+01	.3547E+01	-.1014E+01	.3708E-02	-.4287E-01
19	.5942E+00	.5953E+00	.1011E+01	-.9220E-01	.6095E+00	.1228E+01	.1022E+01	.3558E+01	-.1018E+01	.1666E-01	-.4733E-01
20	.5799E+00	.5791E+00	.1011E+01	-.9610E-01	.5936E+00	.1246E+01	.1023E+01	.3553E+01	-.1023E+01	.1264E-01	-.4900E-01

21	.5965E+00	.5876E+00	.1010E+01	-.9035E-01	.6021E+00	.1256E+01	.1024E+01	.3521E+01	-.1009E+01	-.1065E-01	-.4705E-01
22	.6445E+00	.6204E+00	.1006E+01	-.7570E-01	.6346E+00	.1257E+01	.1024E+01	.3465E+01	-.1024E+01	.2694E-01	-.4146E-01
23	.7186E+00	.6711E+00	.1001E+01	-.5[illegible]0E-01	.6842E+00	.1256E+01	.1024E+01	.3390E+01	-.1045E+01	.5870E-01	-.3282E-01
24	.8124E+00	.7350E+00	.9940E+00	-.3[illegible]58E-01	.7463E+00	.1250E+01	.1023E+01	.3311E+01	-.9837E+00	-.1263E-01	-.2188E-01
25	.9192E+00	.8144E+00	.9892E+00	-.7472E-02	.8246E+00	.1225E+01	.1022E+01	.3259E+01	-.8321E+00	-.2018E+00	-.9425E-02
26	.1029E+01	.9101E+00	.9887E+00	.1398E-01	.9212E+00	.1174E+01	.1022E+01	.3255E+01	-.8527E+00	-.2087E+00	.3334E-02
27	.1124E+01	.1003E+01	.9900E+00	.3062E-01	.1015E+01	.1120E+01	.1022E+01	.3274E+01	-.9269E+00	-.1121E+00	.1447E-01
28	.1198E+01	.1073E+01	.9900E+00	.4296E-01	.1086E+01	.1085E+01	.1021E+01	.3283E+01	-.9567E+00	-.6977E-01	.2310E-01
29	.1257E+01	.1123E+01	.9883E+00	.5278E-01	.1135E+01	.1069E+01	.1020E+01	.3274E+01	-.9614E+00	-.6909E-01	.2999E-01
30	.1312E+01	.1163E+01	.9860E+00	.6147E-01	.1175E+01	.1062E+01	.1020E+01	.3256E+01	-.9638E+00	-.7205E-01	.3633E-01
31	.1369E+01	.1200E+01	.9833E+00	.6935E-01	.1211E+01	.1057E+01	.1020E+01	.3236E+01	-.9812E+00	-.1590E-01	.4253E-01
32	.1414E+01	.1231E+01	.9800E+00	.7603E-01	.1240E+01	.1056E+01	.1019E+01	.3211E+01	-.9890E+00	.1448E-01	.4824E-01
33	.1454E+01	.1250E+01	.9755E+00	.8106E-01	.1256E+01	.1064E+01	.1017E+01	.3177E+01	-.1031E+01	.9650E-01	.5293E-01
34	.1482E+01	.1250E+01	.9686E+00	.8425E-01	.1249E+01	.1085E+01	.1015E+01	.3125E+01	-.1091E+01	.1406E+00	.5623E-01
35	.1497E+01	.1232E+01	.9598E+00	.8556E-01	.1224E+01	.1118E+01	.1012E+01	.3060E+01	-.1001E+01	.4159E-01	.5800E-01
36	.1504E+01	.1212E+01	.9516E+00	.8546E-01	.1196E+01	.1149E+01	.1008E+01	.3002E+01	-.9686E+00	.1419E-01	.5879E-01
37	.1507E+01	.1200E+01	.9458E+00	.8466E-01	.1178E+01	.1167E+01	.1004E+01	.2966E+01	-.9907E+00	.4347E-01	.5913E-01
38	.1509E+01	.1198E+01	.9429E+00	.8386E-01	.1172E+01	.1171E+01	.1001E+01	.2953E+01	-.9748E+00	.2875E-01	.5935E-01
39	.1513E+01	.1212E+01	.9436E+00	.8365E-01	.1184E+01	.1156E+01	.9991E+00	.2967E+01	-.8789E+00	-.6989E-01	.5986E-01
40	.1523E+01	.1246E+01	.9487E+00	.8428E-01	.1219E+01	.1119E+01	.9985E+00	.3015E+01	-.8803E+00	-.7471E-01	.6100E-01
41	.1536E+01	.1294E+01	.9567E+00	.8548E-01	.1271E+01	.1070E+01	.9991E+00	.3086E+01	-.9130E+00	-.4955E-01	.6247E-01
42	.1546E+01	.1344E+01	.9651E+00	.8674E-01	.1326E+01	.1024E+01	.1000E+01	.3161E+01	-.8991E+00	-.7305E-01	.6373E-01
43	.1554E+01	.1386E+01	.9720E+00	.8772E-01	.1371E+01	.9956E+00	.1002E+01	.3224E+01	-.8906E+00	-.8189E-01	.6441E-01
44	.1554E+01	.1406E+01	.9765E+00	.8839E-01	.1398E+01	.9642E+00	.1003E+01	.3264E+01	-.9336E+00	-.5062E-01	.6463E-01
45	.1554E+01	.1412E+01	.9780E+00	.8894E-01	.1405E+01	.9589E+00	.1004E+01	.3276E+01	-.8996E+00	-.9003E-01	.6465E-01
46	.1556E+01	.1405E+01	.9770E+00	.8950E-01	.1398E+01	.9665E+00	.1005E+01	.3263E+01	-.8594E+00	-.1382E+00	.6479E-01
47	.1557E+01	.1391E+01	.9745E+00	.8983E-01	.1383E+01	.9814E+00	.1005E+01	.3237E+01	-.8933E+00	-.9905E-01	.6498E-01
48	.1554E+01	.1373E+01	.9717E+00	.8924E-01	.1363E+01	.9970E+00	.1004E+01	.3210E+01	-.8471E+00	-.1550E+00	.6461E-01
49	.1538E+01	.1353E+01	.9701E+00	.8678E-01	.1341E+01	.1008E+01	.1003E+01	.3196E+01	-.7810E+00	-.2561E+00	.6279E-01
50	.1504E+01	.1326E+01	.9705E+00	.8179E-01	.1314E+01	.1013E+01	.1002E+01	.3201E+01	-.8174E+00	-.2215E+00	.5881E-01
51	.1451E+01	.1292E+01	.9727E+00	.7425E-01	.1280E+01	.1014E+01	.1001E+01	.3222E+01	-.8477E+00	-.1942E+00	.5262E-01
52	.1382E+01	.1249E+01	.9764E+00	.6440E-01	.1238E+01	.1013E+01	.1001E+01	.3256E+01	-.8729E+00	-.1736E+00	.4458E-01
53	.1302E+01	.1197E+01	.9808E+00	.5237E-01	.1188E+01	.1012E+01	.1000E+01	.3296E+01	-.7778E+00	-.5654E+00	.3520E-01
54	.1212E+01	.1139E+01	.9856E+00	.3797E-01	.1131E+01	.1011E+01	.9995E+00	.3345E+01	-.1134E+01	-.1294E+01	.2478E-01
55	.1125E+01	.1082E+01	.9903E+00	.2274E-01	.1076E+01	.1008E+01	.9983E+00	.3399E+01	-.1340E+01	-.1442E+01	.1461E-01
56	.1056E+01	.1037E+01	.9945E+00	.9927E-02	.1032E+01	.1004E+01	.9978E+00	.3449E+01	-.1801E+01	-.1888E+01	.6529E-02
57	.1010E+01	.1007E+01	.9980E+00	.1107E-02	.1004E+01	.1000E+01	.9980E+00	.3488E+01	-.2757E+01	-.2842E+01	.1112E-02
58	.9863E+00	.9916E+00	.1000E+01	-.3146E-02	.9911E+00	.9980E+00	.9992E+00	.3511E+01	-.4716E+01	-.4805E+01	-.1601E-02
59	.9848E+00	.9904E+00	.1002E+01	-.2904E-02	.9915E+00	.9982E+00	.1001E+01	.3515E+01	-.4776E+01	-.4897E+01	-.1770E-02
60	.9926E+00	.9952E+00	.1001E+01	-.1090E-02	.9964E+00	.9993E+00	.1001E+01	.3509E+01	-.3492E+01	-.3667E+01	-.8580E-03
61	.9990E+00	.9993E+00	.1000E+01	.8098E-04	.9998E+00	.1000E+01	.1000E+01	.3502E+01	-.2372E+01	-.2622E+01	-.1123E-03
62	.1002E+01	.1001E+01	.9999E+00	.4008E-03	.1001E+01	.1000E+01	.1000E+01	.3499E+01	-.1576E+01	-.1918E+01	.1904E-03
63	.1002E+01	.1001E+01	.9998E+00	.3274E-03	.1001E+01	.1000E+01	.9998E+00	.3498E+01	-.1051E+01	-.1495E+01	.2189E-03
64	.1001E+01	.1001E+01	.9998E+00	.1883E-03	.1001E+01	.1000E+01	.9998E+00	.3499E+01	-.7140E+00	-.1259E+01	.1562E-03
65	.1001E+01	.1001E+01	.9999E+00	.9476E-04	.1000E+01	.1000E+01	.9999E+00	.3499E+01	-.5044E+00	-.1137E+01	.9286E-04
66	.1000E+01	.1000E+01	.9999E+00	.5304E-04	.1000E+01	.1000E+01	.9999E+00	.3500E+01	-.4069E+00	-.1093E+01	.5377E-04
67	.1000E+01	.1000E+01	.1000E+01	.4634E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1534E+00	-.1016E+01	.3842E-04
68	.1000E+01	.1000E+01	.1000E+01	.6263E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.3996E-01	-.9873E+00	.4107E-04
69	.1000E+01	.1000E+01	.1000E+01	.9498E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1278E+00	-.9020E+00	.5629E-04
70	.1001E+01	.1000E+01	.1000E+01	.1347E-03	.1001E+01	.1000E+01	.1000E+01	.3500E+01	.2052E+00	-.8118E+00	.7745E-04
71	.1001E+01	.1001E+01	.1000E+01	.1703E-03	.1001E+01	.1000E+01	.1000E+01	.3500E+01	.4734E+00	-.5423E+00	.9707E-04
72	.1001E+01	.1001E+01	.1000E+01	.1903E-03	.1001E+01	.1000E+01	.1000E+01	.3500E+01	.8228E+00	-.1881E+00	.1082E-03
73	.1001E+01	.1001E+01	.1000E+01	.1903E-03	.1001E+01	.1000E+01	.1000E+01	.3500E+01	.1000E+01	-.9761E-02	.1082E-03

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DI	DETA/DX	DETA/DY	EI/EIINF
1	.1282E+01	.9000E+02	.4486E+00	0.	-.2500E+00	.4955E-11	0.	.1272E-10	-.5127E+01	.9376E+00
2	.1282E+01	.8600E+02	.4486E+00	-.7408E-06	-.2500E+00	.1761E-08	-.2424E-05	.4210E-11	-.5127E+01	.9376E+00
3	.1282E+01	.8200E+02	.4486E+00	-.2671E-06	-.2500E+00	.7473E-08	-.1612E-05	-.4554E-14	-.5127E+01	.9350E+00
4	.1282E+01	.7800E+02	.4486E+00	-.1792E-06	-.2500E+00	.2941E-07	-.1285E-05	.2391E-13	-.5127E+01	.9299E+00
5	.1282E+01	.7400E+02	.4486E+00	-.1533E-06	-.2500E+00	.1138E-06	-.1174E-05	-.8346E-01	-.5127E+01	.9234E+00
6	.1315E+01	.7000E+02	.5788E+00	-.2017E-06	-.2500E+00	.4626E-06	-.1299E-05	-.1834E+00	-.5259E+01	.9168E+00
7	.1355E+01	.6600E+02	.7275E+00	-.3119E-06	-.2500E+00	.1976E-05	-.1620E-05	-.2014E+00	-.5419E+01	.9119E+00
8	.1398E+01	.6200E+02	.8761E+00	-.4797E-06	-.2500E+00	.8869E-05	-.2132E-05	-.2076E+00	-.5591E+01	.9106E+00
9	.1444E+01	.5800E+02	.1024E+01	-.7073E-06	-.2500E+00	.4196E-04	-.2859E-05	-.2142E+00	-.5777E+01	.9143E+00
10	.1495E+01	.5400E+02	.1173E+01	-.9668E-06	-.2500E+00	.2101E-03	-.3699E-05	-.2216E+00	-.5978E+01	.9231E+00

11	.1549E+01	.5000E+02	.1321E+01	-.1210E-05	-.2503E+00	.1122E-02	-.4490E-05	-.2292E+00	-.6189E+01	.9360E+00
12	.1619E+01	.4601E+02	.1469E+01	-.1387E-05	-.2518E+00	.6504E-02	-.5054E-05	-.2352E+00	-.6425E+01	.9513E+00
13	.1923E+01	.4207E+02	.1612E+01	-.1319E-05	-.2848E+00	.4713E-01	-.4767E-05	-.2473E+00	-.6709E+01	.9671E+00
14	.2309E+01	.3903E+02	.1726E+01	-.1186E-05	-.3340E+00	.2775E-01	-.4289E-05	-.2482E+00	-.6893E+01	.9813E+00
15	.2889E+01	.3610E+02	.1826E+01	-.9784E-06	-.3970E+00	.1002E+00	-.3574E-05	-.2032E+00	-.7227E+01	.9924E+00
16	.3509E+01	.3403E+02	.1867E+01	-.7861E-06	-.4892E+00	.3860E-01	-.2922E-05	-.2215E+00	-.7155E+01	.9995E+00
17	.3621E+01	.3202E+02	.1953E+01	-.6956E-06	-.4991E+00	.2537E-01	-.2647E-05	-.4000E+00	-.7234E+01	.1002E+01
18	.3750E+01	.3003E+02	.2088E+01	-.5788E-06	-.5057E+00	.4635E-01	-.2279E-05	-.5663E+00	-.7364E+01	.1001E+01
19	.4009E+01	.2809E+02	.2255E+01	-.4512E-06	-.5167E+00	.1351E+00	-.1863E-05	-.5701E+00	-.7609E+01	.9981E+00
20	.5971E+01	.2624E+02	.2372E+01	-.2528E-06	-.6436E+00	.5142E+00	-.1109E-05	-.7352E+00	-.8690E+01	.1001E+01
21	.8169E+01	.2518E+02	.2501E+01	-.1587E-06	-.9346E+00	.5705E+00	-.7384E-06	-.8161E+00	-.8241E+01	.1015E+01
22	.9226E+01	.2422E+02	.2572E+01	-.1237E-06	-.1008E+01	.7549E+00	-.6047E-06	-.4664E+00	-.8807E+01	.1039E+01
23	.1168E+02	.2327E+02	.2602E+01	-.8459E-07	-.1031E+01	.1179E+01	-.4346E-06	-.1765E+00	-.1113E+02	.1071E+01
24	.1915E+02	.2231E+02	.2602E+01	-.4334E-07	-.1256E+01	.2305E+01	-.2390E-06	-.5450E+00	-.1424E+02	.1105E+01
25	.2538E+02	.2178E+02	.2659E+01	-.2725E-07	-.1949E+01	.2830E+01	-.1657E-06	-.1587E+01	-.1072E+02	.1129E+01
26	.3025E+02	.2147E+02	.2727E+01	-.1863E-07	-.2839E+01	.2804E+01	-.1281E-06	-.1470E+01	-.9203E+01	.1130E+01
27	.3130E+02	.2117E+02	.2756E+01	-.1545E-07	-.3307E+01	.2360E+01	-.1177E-06	-.5923E+00	-.9041E+01	.1121E+01
28	.3103E+02	.2089E+02	.2765E+01	-.1458E-07	-.3506E+01	.1913E+01	-.1167E-06	-.1675E+00	-.8759E+01	.1116E+01
29	.2992E+02	.2061E+02	.2767E+01	-.1452E-07	-.3524E+01	.1498E+01	-.1197E-06	-.9495E-01	-.8449E+01	.1120E+01
30	.2789E+02	.2033E+02	.2771E+01	-.1471E-07	-.3384E+01	.1095E+01	-.1261E-06	-.6035E-01	-.8223E+01	.1128E+01
31	.2284E+02	.2002E+02	.2771E+01	-.1616E-07	-.2841E+01	.6532E+00	-.1486E-06	.4470E+00	-.8144E+01	.1137E+01
32	.1934E+02	.1961E+02	.2732E+01	-.1864E-07	-.2347E+01	.8492E+00	-.1765E-06	.7753E+00	-.8518E+01	.1148E+01
33	.1379E+02	.1914E+02	.2691E+01	-.3446E-07	-.1638E+01	.7768E+00	-.2798E-06	.1512E+01	-.9139E+01	.1163E+01
34	.1547E+02	.1829E+02	.2513E+01	-.4997E-07	-.1373E+01	.1690E+01	-.3171E-06	.2252E+01	-.1404E+02	.1186E+01
35	.1646E+02	.1732E+02	.2400E+01	-.6824E-07	-.1263E+01	.2145E+01	-.3695E-06	.1707E+01	-.1594E+02	.1215E+01
36	.1722E+02	.1635E+02	.2305E+01	-.7291E-07	-.1263E+01	.2488E+01	-.3726E-06	.1600E+01	-.1679E+02	.1241E+01
37	.1231E+02	.1537E+02	.2214E+01	-.6554E-07	-.8887E+00	.1932E+01	-.3638E-06	.1869E+01	-.1791E+02	.1256E+01
38	.1321E+02	.1344E+02	.2002E+01	.1179E-07	-.7544E+00	.2536E+01	-.4408E-07	.2438E+01	-.2570E+02	.1259E+01
39	.1185E+02	.1148E+02	.1845E+01	.1135E-06	-.7687E+00	.2575E+01	.3390E-06	.1479E+01	-.2036E+02	.1248E+01
40	.1021E+02	.1000E+02	.1752E+01	.1726E-06	-.8353E+00	.2356E+01	.5625E-06	.1020E+01	-.1510E+02	.1222E+01
41	.8902E+01	.8525E+01	.1645E+01	.1462E-06	-.8393E+00	.2181E+01	.4876E-06	.9772E+00	-.1315E+02	.1187E+01
42	.9243E+01	.7049E+01	.1532E+01	.5799E-07	-.9660E+00	.2401E+01	.1857E-06	.7594E+00	-.1146E+02	.1151E+01
43	.9424E+01	.6046E+01	.1481E+01	-.1192E-08	-.1144E+01	.2453E+01	-.9772E-08	.5527E+00	-.9427E+01	.1122E+01
44	.8811E+01	.5048E+01	.1415E+01	-.2623E-07	-.1167E+01	.2315E+01	-.8275E-07	.6181E+00	-.8774E+01	.1105E+01
45	.1048E+02	.4054E+01	.1341E+01	-.3233E-07	-.1468E+01	.2798E+01	-.1003E-06	.4163E+00	-.7937E+01	.1101E+01
46	.1263E+02	.3534E+01	.1336E+01	-.2813E-07	-.1995E+01	.3257E+01	-.8735E-07	.1319E+00	-.6547E+01	.1107E+01
47	.1204E+02	.3017E+01	.1320E+01	-.2522E-07	-.2061E+01	.3013E+01	-.7931E-07	.2349E+00	-.6184E+01	.1120E+01
48	.1480E+02	.2506E+01	.1297E+01	-.1259E-07	-.2688E+01	.3631E+01	-.3956E-07	-.1923E-01	-.5480E+01	.1132E+01
49	.1939E+02	.2277E+01	.1322E+01	-.3865E-08	-.3916E+01	.4505E+01	-.1204E-07	-.4623E+00	-.4418E+01	.1137E+01
50	.1835E+02	.2050E+01	.1344E+01	-.2601E-09	-.4060E+01	.4053E+01	-.7157E-09	-.3810E+00	-.4139E+01	.1134E+01
51	.1733E+02	.1826E+01	.1364E+01	.1212E-08	-.4161E+01	.3649E+01	.3619E-08	-.3295E+00	-.3877E+01	.1123E+01
52	.1635E+02	.1603E+01	.1382E+01	.1410E-08	-.4232E+01	.3287E+01	.4031E-08	-.3033E+00	-.3627E+01	.1107E+01
53	.1911E+02	.1382E+01	.1401E+01	.1024E-08	-.5324E+01	.3680E+01	.2899E-08	-.1569E+01	-.2506E+01	.1088E+01
54	.2561E+02	.1341E+01	.1546E+01	.6762E-09	-.7740E+01	.4472E+01	.1838E-08	-.3718E+01	-.1161E+01	.1065E+01
55	.2259E+02	.1291E+01	.1691E+01	.6740E-09	-.7424E+01	.3454E+01	.1806E-08	-.3990E+01	-.1186E+01	.1040E+01
56	.1745E+02	.1236E+01	.1900E+01	.7384E-09	-.6189E+01	.2237E+01	.1973E-08	-.5024E+01	-.1004E+01	.1019E+01
57	.1251E+02	.1176E+01	.2267E+01	.7934E-09	-.4755E+01	.1272E+01	.1931E-08	-.7239E+01	-.6947E+00	.1003E+01
58	.9268E+01	.1125E+01	.3057E+01	.7962E-09	-.3710E+01	.7370E+00	.2174E-08	-.1177E+02	-.1605E+00	.9946E+00
59	.6439E+01	.1141E+01	.4806E+01	.1169E-08	-.2556E+01	.5886E+00	.3215E-08	-.1200E+02	.2446E+00	.9944E+00
60	.4628E+01	.1201E+01	.6785E+01	.2336E-08	-.1769E+01	.5742E+00	.6603E-08	-.9113E+01	.3417E+00	.9974E+00
61	.3387E+01	.1289E+01	.8745E+01	.4521E-08	-.1215E+01	.5764E+00	.1351E-07	-.6601E+01	.3436E+00	.9997E+00
62	.2510E+01	.1403E+01	.1068E+02	.7643E-08	-.8172E+00	.5699E+00	.2359E-07	-.4834E+01	.2998E+00	.1001E+01
63	.1948E+01	.1528E+01	.1260E+02	.1107E-07	-.5506E+00	.5590E+00	.3499E-07	-.3713E+01	.2321E+00	.1001E+01
64	.1598E+01	.1642E+01	.1449E+02	.1392E-07	-.3749E+00	.5455E+00	.4487E-07	-.3040E+01	.1616E+00	.1000E+01
65	.1365E+01	.1730E+01	.1640E+02	.1590E-07	-.2607E+00	.5268E+00	.5206E-07	-.2641E+01	.9854E-01	.1000E+01
66	.1141E+01	.1786E+01	.1836E+02	.1842E-07	-.1912E+00	.4770E+00	.6121E-07	-.2426E+01	.8539E-01	.1000E+01
67	.9375E+00	.1880E+01	.2066E+02	.2297E-07	-.6661E-01	.4365E+00	.7745E-07	-.2158E+01	.6760E-01	.1000E+01
68	.9317E+00	.1930E+01	.2297E+02	.2557E-07	.1761E-01	.4624E+00	.8741E-07	-.1988E+01	.7103E+00	.1000E+01
69	.9980E+00	.3405E+01	.2492E+02	.2674E-07	.4374E-01	.5051E+00	.9233E-07	-.1776E+01	.2310E+01	.1000E+01
70	.1047E+01	.6559E+01	.2653E+02	.2664E-07	.4765E-01	.5246E+00	.9250E-07	-.1614E+01	.4201E+01	.1000E+01
71	.9593E+00	.1143E+02	.2801E+02	.2740E-07	.7584E-01	.4575E+00	.9492E-07	-.1123E+01	.5675E+01	.1000E+01
72	.7054E+00	.1881E+02	.2887E+02	.1113E-08	.9339E-01	.2932E+00	-.3255E-08	-.4324E+00	.6197E+01	.1000E+01
73	.2211E+00	.2900E+02	.2923E+02	0.	.8621E-01	0.	0.	-.2552E-01	.2564E+01	.1000E+01

SECOND INDEX= 26

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9696E+00	.1004E+01	.9997E+00	-.5902E-02	.9955E+00	.9646E+00	.9898E+00	.3560E+01	-.9997E+00	.5902E-02	-.3547E-02
2	.9696E+00	.1004E+01	.9997E+00	-.5902E-02	.9955E+00	.9646E+00	.9898E+00	.3560E+01	-.9997E+00	.5902E-02	-.3547E-02
3	.9570E+00	.9932E+00	.9991E+00	-.8456E-02	.9837E+00	.9662E+00	.9882E+00	.3563E+01	-.9991E+00	.8456E-02	-.5016E-02
4	.9317E+00	.9718E+00	.9980E+00	-.1372E-01	.9599E+00	.9698E+00	.9854E+00	.3568E+01	-.9980E+00	.1372E-01	-.7963E-02
5	.8985E+00	.9432E+00	.9965E+00	-.2095E-01	.9283E+00	.9752E+00	.9816E+00	.3574E+01	-.9967E+00	.4268E-02	-.1184E-01
6	.8648E+00	.9137E+00	.9950E+00	-.2873E-01	.8962E+00	.9813E+00	.9780E+00	.3581E+01	-.9957E+00	-.6952E-02	-.1577E-01
7	.8378E+00	.8894E+00	.9940E+00	-.3541E-01	.8703E+00	.9873E+00	.9756E+00	.3587E+01	-.9947E+00	-.2597E-02	-.1891E-01
8	.8220E+00	.8729E+00	.9934E+00	-.3973E-01	.8536E+00	.9944E+00	.9749E+00	.3586E+01	-.9942E+00	.1776E-02	-.2075E-01
9	.8176E+00	.8632E+00	.9932E+00	-.4140E-01	.8450E+00	.1005E+01	.9763E+00	.3575E+01	-.9939E+00	.3486E-02	-.2127E-01
10	.8214E+00	.8569E+00	.9931E+00	-.4096E-01	.8409E+00	.1020E+01	.9794E+00	.3553E+01	-.9938E+00	.3058E-02	-.2082E-01
11	.8291E+00	.8503E+00	.9930E+00	-.3932E-01	.8373E+00	.1040E+01	.9839E+00	.3522E+01	-.9937E+00	.1441E-02	-.1993E-01
12	.8359E+00	.8400E+00	.9928E+00	-.3739E-01	.8306E+00	.1067E+01	.9894E+00	.3486E+01	-.9935E+00	-.1722E-03	-.1913E-01
13	.8368E+00	.8227E+00	.9926E+00	-.3619E-01	.8173E+00	.1100E+01	.9955E+00	.3447E+01	-.9931E+00	-.1570E-02	-.1903E-01
14	.8262E+00	.7954E+00	.9925E+00	-.3694E-01	.7939E+00	.1138E+01	.1002E+01	.3411E+01	-.9932E+00	-.1592E-03	-.2027E-01
15	.7996E+00	.7556E+00	.9923E+00	-.4096E-01	.7575E+00	.1184E+01	.1007E+01	.3379E+01	-.9960E+00	.1261E-01	-.2337E-01
16	.7561E+00	.7035E+00	.9917E+00	-.4909E-01	.7077E+00	.1237E+01	.1012E+01	.3352E+01	-.9937E+00	.1843E-01	-.2845E-01
17	.7010E+00	.6446E+00	.9908E+00	-.6113E-01	.6501E+00	.1296E+01	.1015E+01	.3332E+01	-.9927E+00	.5468E-02	-.3487E-01
18	.6451E+00	.5891E+00	.9901E+00	-.7534E-01	.5953E+00	.1353E+01	.1018E+01	.3321E+01	-.9929E+00	-.2186E-02	-.4139E-01
19	.6013E+00	.5470E+00	.9896E+00	-.8800E-01	.5538E+00	.1399E+01	.1020E+01	.3317E+01	-.9951E+00	.8900E-02	-.4650E-01
20	.5813E+00	.5252E+00	.9888E+00	-.9433E-01	.5324E+00	.1432E+01	.1021E+01	.3304E+01	-.9986E+00	.9157E-02	-.4883E-01
21	.5924E+00	.5276E+00	.9867E+00	-.9107E-01	.5349E+00	.1450E+01	.1023E+01	.3273E+01	-.9880E+00	-.6432E-02	-.4754E-01
22	.6353E+00	.5543E+00	.9833E+00	-.7843E-01	.5610E+00	.1451E+01	.1023E+01	.3225E+01	-.9968E+00	.1834E-01	-.4253E-01
23	.7057E+00	.5995E+00	.9778E+00	-.5898E-01	.6047E+00	.1445E+01	.1023E+01	.3160E+01	-.1008E+01	.3801E-01	-.3432E-01
24	.7973E+00	.6590E+00	.9714E+00	-.3564E-01	.6621E+00	.1429E+01	.1022E+01	.3093E+01	-.9604E+00	-.1328E-01	-.2364E-01
25	.9015E+00	.7354E+00	.9680E+00	-.1190E-01	.7372E+00	.1386E+01	.1021E+01	.3060E+01	-.8431E+00	-.1578E+00	-.1149E-01
26	.1006E+01	.8299E+00	.9707E+00	.8446E-02	.8326E+00	.1306E+01	.1021E+01	.3086E+01	-.8696E+00	-.1576E+00	.6961E-03
27	.1092E+01	.9200E+00	.9752E+00	.2336E-01	.9243E+00	.1227E+01	.1020E+01	.3134E+01	-.9361E+00	-.7198E-01	.1074E-01
28	.1154E+01	.9845E+00	.9772E+00	.3405E-01	.9894E+00	.1180E+01	.1019E+01	.3161E+01	-.9591E+00	-.4019E-01	.1798E-01
29	.1205E+01	.1028E+01	.9764E+00	.4312E-01	.1032E+01	.1159E+01	.1018E+01	.3152E+01	-.9601E+00	-.4531E-01	.2397E-01
30	.1248E+01	.1067E+01	.9741E+00	.5201E-01	.1070E+01	.1151E+01	.1018E+01	.3142E+01	-.9604E+00	-.5106E-01	.3030E-01
31	.1322E+01	.1108E+01	.9713E+00	.6186E-01	.1111E+01	.1145E+01	.1018E+01	.3119E+01	-.9712E+00	-.1013E-01	.3751E-01
32	.1385E+01	.1146E+01	.9671E+00	.7068E-01	.1147E+01	.1144E+01	.1018E+01	.3087E+01	-.9735E+00	.9424E-02	.4487E-01
33	.1440E+01	.1170E+01	.9607E+00	.7766E-01	.1167E+01	.1155E+01	.1016E+01	.3041E+01	-.9965E+00	.6318E-01	.5130E-01
34	.1479E+01	.1169E+01	.9508E+00	.8213E-01	.1158E+01	.1188E+01	.1013E+01	.2970E+01	-.1038E+01	.9640E-01	.5585E-01
35	.1498E+01	.1144E+01	.9379E+00	.8371E-01	.1124E+01	.1240E+01	.1009E+01	.2881E+01	-.9642E+00	.2476E-01	.5804E-01
36	.1504E+01	.1115E+01	.9257E+00	.8321E-01	.1085E+01	.1290E+01	.1004E+01	.2802E+01	-.9354E+00	.6399E-02	.5872E-01
37	.1506E+01	.1098E+01	.9174E+00	.8204E-01	.1061E+01	.1321E+01	.9999E+00	.2753E+01	-.9459E+00	.2627E-01	.5898E-01
38	.1508E+01	.1096E+01	.9137E+00	.8122E-01	.1054E+01	.1326E+01	.9964E+00	.2737E+01	-.9334E+00	.1644E-01	.5924E-01
39	.1513E+01	.1113E+01	.9158E+00	.8126E-01	.1070E+01	.1302E+01	.9942E+00	.2760E+01	-.8737E+00	-.4666E-01	.5984E-01
40	.1524E+01	.1157E+01	.9247E+00	.8233E-01	.1116E+01	.1243E+01	.9939E+00	.2831E+01	-.8817E+00	-.4834E-01	.6111E-01
41	.1538E+01	.1219E+01	.9378E+00	.8407E-01	.1184E+01	.1166E+01	.9952E+00	.2934E+01	-.9106E+00	-.3226E-01	.6273E-01
42	.1549E+01	.1286E+01	.9515E+00	.8583E-01	.1259E+01	.1089E+01	.9972E+00	.3047E+01	-.9093E+00	-.4837E-01	.6403E-01
43	.1554E+01	.1346E+01	.9635E+00	.8714E-01	.1326E+01	.1025E+01	.9994E+00	.3151E+01	-.9162E+00	-.5490E-01	.6459E-01
44	.1552E+01	.1387E+01	.9724E+00	.8789E-01	.1374E+01	.9817E+00	.1001E+01	.3230E+01	-.9461E+00	-.3273E-01	.6443E-01
45	.1549E+01	.1408E+01	.9775E+00	.8840E-01	.1400E+01	.9592E+00	.1003E+01	.3276E+01	-.9278E+00	-.5860E-01	.6404E-01
46	.1550E+01	.1412E+01	.9789E+00	.8920E-01	.1406E+01	.9557E+00	.1004E+01	.3284E+01	-.9011E+00	-.9273E-01	.6411E-01
47	.1557E+01	.1407E+01	.9772E+00	.9049E-01	.1400E+01	.9659E+00	.1005E+01	.3264E+01	-.9234E+00	-.6730E-01	.6501E-01
48	.1569E+01	.1397E+01	.9738E+00	.9182E-01	.1389E+01	.9821E+00	.1005E+01	.3231E+01	-.8871E+00	-.1089E+00	.6632E-01
49	.1574E+01	.1386E+01	.9705E+00	.9209E-01	.1375E+01	.9966E+00	.1004E+01	.3202E+01	-.8319E+00	-.1860E+00	.6697E-01
50	.1565E+01	.1372E+01	.9689E+00	.9024E-01	.1359E+01	.1005E+01	.1003E+01	.3189E+01	-.8581E+00	-.1591E+00	.6584E-01
51	.1535E+01	.1351E+01	.9695E+00	.8602E-01	.1337E+01	.1008E+01	.1002E+01	.3195E+01	-.8802E+00	-.1377E+00	.6244E-01
52	.1488E+01	.1320E+01	.9719E+00	.7956E-01	.1308E+01	.1008E+01	.1002E+01	.3215E+01	-.8994E+00	-.1205E+00	.5688E-01
53	.1422E+01	.1278E+01	.9756E+00	.7064E-01	.1268E+01	.1009E+01	.1002E+01	.3245E+01	-.7737E+00	-.5315E+00	.4922E-01
54	.1333E+01	.1218E+01	.9803E+00	.5765E-01	.1210E+01	.1011E+01	.1002E+01	.3286E+01	-.1234E+01	-.1443E+01	.3878E-01
55	.1222E+01	.1144E+01	.9856E+00	.3991E-01	.1138E+01	.1012E+01	.1000E+01	.3341E+01	-.1505E+01	-.1654E+01	.2588E-01
56	.1114E+01	.1073E+01	.9911E+00	.2080E-01	.1068E+01	.1009E+01	.9987E+00	.3406E+01	-.2096E+01	-.2214E+01	.1324E-01
57	.1028E+01	.1018E+01	.9963E+00	.4595E-02	.1015E+01	.1003E+01	.9976E+00	.3470E+01	-.3281E+01	-.3373E+01	.3268E-02
58	.9858E+00	.9913E+00	.1000E+01	-.3330E-02	.9907E+00	.9980E+00	.9990E+00	.3511E+01	-.5659E+01	-.5734E+01	-.1652E-02
59	.9852E+00	.9906E+00	.1002E+01	-.2713E-02	.9919E+00	.9983E+00	.1001E+01	.3515E+01	-.5576E+01	-.5674E+01	-.1728E-02
60	.9951E+00	.9967E+00	.1001E+01	-.5890E-03	.9977E+00	.9996E+00	.1001E+01	.3506E+01	-.3954E+01	-.4100E+01	-.5760E-03
61	.1000E+01	.1000E+01	.1000E+01	.2486E-03	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.2621E+01	-.2835E+01	.4948E-04
62	.1001E+01	.1001E+01	.9998E+00	.2587E-03	.1001E+01	.1000E+01	.9999E+00	.3498E+01	-.1714E+01	-.2016E+01	.1669E-03
63	.1001E+01	.1001E+01	.9998E+00	.1005E-03	.1000E+01	.1000E+01	.9998E+00	.3499E+01	-.1132E+01	-.1538E+01	.1066E-03
64	.1000E+01	.1000E+01	.9999E+00	.2631E-05	.1000E+01	.1000E+01	.9999E+00	.3500E+01	-.7644E+00	-.1278E+01	.3901E-04

65	.1000E+01	.1000E+01	.1000E+01	-.2848E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5405E+00	-.1147E+01	.2924E-05
66	.9999E+00	.1000E+01	.1000E+01	-.2797E-04	.9999E+00	.1000E+01	.1000E+01	.3500E+01	-.4481E+00	-.1104E+01	-.8623E-05
67	.9999E+00	.1000E+01	.1000E+01	-.1546E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1702E+00	-.1017E+01	-.6279E-05
68	.1000E+01	.1000E+01	.1000E+01	.6725E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.3776E-01	-.9884E+00	.5387E-05
69	.1000E+01	.1000E+01	.1000E+01	.4209E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1231E+00	-.9057E+00	.2562E-04
70	.1000E+01	.1000E+01	.1000E+01	.8809E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1881E+00	-.8273E+00	.5148E-04
71	.1001E+01	.1000E+01	.1000E+01	.1331E-03	.1001E+01	.1000E+01	.1000E+01	.3500E+01	.4490E+00	-.5659E+00	.7617E-04
72	.1001E+01	.1001E+01	.1000E+01	.1604E-03	.1001E+01	.9999E+00	.1000E+01	.3500E+01	.7867E+00	-.2252E+00	.9081E-04
73	.1001E+01	.1001E+01	.1000E+01	.1604E-03	.1001E+01	.9999E+00	.1000E+01	.3500E+01	.1001E+01	-.3308E-01	.9081E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.1919E+01	.9000E+02	.2918E+00	0.	-.2500E+00	.2182E-11	0.	.1452E-10	-.7677E+01	.9660E+00
2	.1919E+01	.8600E+02	.2918E+00	-.6303E-06	-.2500E+00	.1832E-08	-.2987E-05	.4791E-11	-.7677E+01	.9660E+00
3	.1919E+01	.8200E+02	.2918E+00	-.4843E-06	-.2500E+00	.7544E-08	-.2328E-05	-.1705E-13	-.7677E+01	.9635E+00
4	.1919E+01	.7800E+02	.2918E+00	-.4932E-06	-.2500E+00	.2968E-07	-.2390E-05	.4773E-13	-.7677E+01	.9587E+00
5	.1919E+01	.7400E+02	.2918E+00	-.5272E-06	-.2500E+00	.1144E-06	-.2516E-05	-.1285E+00	-.7677E+01	.9526E+00
6	.1963E+01	.7000E+02	.4256E+00	-.5704E-06	-.2500E+00	.4645E-06	-.2639E-05	-.2816E+00	-.7853E+01	.9465E+00
7	.2017E+01	.6600E+02	.5786E+00	-.6082E-06	-.2500E+00	.1984E-05	-.2720E-05	-.3084E+00	-.8067E+01	.9421E+00
8	.2074E+01	.6200E+02	.7315E+00	-.6287E-06	-.2500E+00	.8905E-05	-.2711E-05	-.3170E+00	-.8297E+01	.9418E+00
9	.2136E+01	.5800E+02	.8843E+00	-.6602E-06	-.2500E+00	.4214E-04	-.2737E-05	-.3261E+00	-.8544E+01	.9472E+00
10	.2203E+01	.5400E+02	.1037E+01	-.7238E-06	-.2500E+00	.2111E-03	-.2689E-05	-.3363E+00	-.8810E+01	.9586E+00
11	.2274E+01	.5000E+02	.1190E+01	-.8060E-06	-.2502E+00	.1128E-02	-.3119E-05	-.3466E+00	-.9087E+01	.9751E+00
12	.2362E+01	.4601E+02	.1342E+01	-.8824E-06	-.2511E+00	.6567E-02	-.3331E-05	-.3555E+00	-.9396E+01	.9952E+00
13	.2802E+01	.4205E+02	.1491E+01	-.8454E-06	-.2844E+00	.4999E-01	-.3152E-05	-.3722E+00	-.9788E+01	.1017E+01
14	.3348E+01	.3902E+02	.1607E+01	-.7851E-06	-.3334E+00	.2821E-01	-.2918E-05	-.3742E+00	-.1001E+02	.1039E+01
15	.4202E+01	.3607E+02	.1714E+01	-.6512E-06	-.3968E+00	.1073E+00	-.2427E-05	-.3039E+00	-.1051E+02	.1058E+01
16	.5106E+01	.3402E+02	.1752E+01	-.5085E-06	-.4921E+00	.3925E-01	-.1912E-05	-.3201E+00	-.1035E+02	.1075E+01
17	.5229E+01	.3201E+02	.1839E+01	-.4189E-06	-.4989E+00	.2565E-01	-.1586E-05	-.5870E+00	-.1045E+02	.1087E+01
18	.5375E+01	.3002E+02	.1977E+01	-.3043E-06	-.5027E+00	.4675E-01	-.1163E-05	-.8314E+00	-.1062E+02	.1095E+01
19	.5679E+01	.2806E+02	.2149E+01	-.1867E-06	-.5072E+00	.1382E+00	-.7368E-06	-.8773E+00	-.1096E+02	.1099E+01
20	.8802E+01	.2616E+02	.2286E+01	-.6365E-07	-.6314E+00	.5549E+00	-.2784E-06	-.1138E+01	-.1294E+02	.1107E+01
21	.1186E+02	.2512E+02	.2407E+01	-.2061E-07	-.9362E+00	.5846E+00	-.1160E-06	-.1172E+01	-.1193E+02	.1123E+01
22	.1327E+02	.2415E+02	.2483E+01	-.8872E-08	-.9827E+00	.7807E+00	-.7956E-07	-.8275E+00	-.1285E+02	.1146E+01
23	.1706E+02	.2319E+02	.2532E+01	-.1211E-07	-.9891E+00	.1242E+01	-.9780E-07	-.5788E+00	-.1652E+02	.1177E+01
24	.2951E+02	.2221E+02	.2551E+01	-.2005E-07	-.1230E+01	.2516E+01	-.1179E-06	-.9531E+00	-.2205E+02	.1210E+01
25	.3948E+02	.2169E+02	.2597E+01	-.2713E-07	-.2072E+01	.3075E+01	-.1444E-06	-.1935E+01	-.1618E+02	.1226E+01
26	.4643E+02	.2139E+02	.2649E+01	-.2306E-07	-.3109E+01	.2910E+01	-.1276E-06	-.1654E+01	-.1339E+02	.1212E+01
27	.4699E+02	.2111E+02	.2668E+01	-.1599E-07	-.3539E+01	.2351E+01	-.1033E-06	-.5063E+00	-.1294E+02	.1187E+01
28	.4590E+02	.2084E+02	.2671E+01	-.9879E-08	-.3678E+01	.1855E+01	-.8229E-07	-.2381E-01	-.1247E+02	.1172E+01
29	.4403E+02	.2057E+02	.2669E+01	-.7032E-08	-.3669E+01	.1413E+01	-.7399E-07	.1043E-01	-.1201E+02	.1172E+01
30	.4098E+02	.2030E+02	.2670E+01	-.6453E-08	-.3517E+01	.9633E+00	-.7549E-07	.2732E-01	-.1166E+02	.1181E+01
31	.3182E+02	.2000E+02	.2668E+01	-.8422E-08	-.2803E+01	.4085E+00	-.9804E-07	.6113E+00	-.1144E+02	.1193E+01
32	.2675E+02	.1958E+02	.2632E+01	-.1578E-07	-.2268E+01	.8063E+00	-.1411E-06	.9962E+00	-.1215E+02	.1208E+01
33	.1865E+02	.1909E+02	.2593E+01	-.4361E-07	-.1546E+01	.7188E+00	-.2814E-06	.1761E+01	-.1288E+02	.1230E+01
34	.2261E+02	.1820E+02	.2445E+01	-.5823E-07	-.1305E+01	.1766E+01	-.3072E-06	.2876E+01	-.2121E+02	.1265E+01
35	.2431E+02	.1722E+02	.2339E+01	-.6139E-07	-.1238E+01	.2196E+01	-.2959E-06	.2364E+01	-.2386E+02	.1309E+01
36	.2567E+02	.1623E+02	.2247E+01	-.5515E-07	-.1250E+01	.2541E+01	-.2530E-06	.2335E+01	-.2526E+02	.1348E+01
37	.1829E+02	.1525E+02	.2157E+01	-.6174E-07	-.8709E+00	.1952E+01	-.2655E-06	.2654E+01	-.2694E+02	.1371E+01
38	.1996E+02	.1329E+02	.1956E+01	-.7186E-07	-.7440E+00	.2558E+01	-.2950E-06	.3628E+01	-.3929E+02	.1376E+01
39	.1821E+02	.1131E+02	.1793E+01	-.7385E-07	-.7796E+00	.2601E+01	-.3219E-06	.2458E+01	-.3155E+02	.1359E+01
40	.1561E+02	.9819E+01	.1686E+01	-.3956E-07	-.8475E+00	.2346E+01	-.2451E-06	.1743E+01	-.2325E+02	.1318E+01
41	.1359E+02	.8332E+01	.1570E+01	.1330E-07	-.8436E+00	.2151E+01	-.4693E-07	.1609E+01	-.2021E+02	.1262E+01
42	.1440E+02	.6845E+01	.1449E+01	.1191E-07	-.9823E+00	.2403E+01	-.2190E-07	.1335E+01	-.1793E+02	.1204E+01
43	.1477E+02	.5842E+01	.1385E+01	-.1368E-07	-.1170E+01	.2460E+01	-.8402E-07	.1028E+01	-.1479E+02	.1155E+01
44	.1370E+02	.4842E+01	.1310E+01	-.2481E-07	-.1180E+01	.2298E+01	-.9979E-07	.1057E+01	-.1367E+02	.1119E+01
45	.1671E+02	.3846E+01	.1230E+01	-.2328E-07	-.1511E+01	.2841E+01	-.8484E-07	.8295E+00	-.1261E+02	.1100E+01
46	.2058E+02	.3333E+01	.1211E+01	-.1615E-07	-.2105E+01	.3375E+01	-.5420E-07	.4695E+00	-.1053E+02	.1097E+01
47	.1931E+02	.2822E+01	.1185E+01	-.1417E-07	-.2139E+01	.3071E+01	-.4467E-07	.5545E+00	-.9826E+01	.1107E+01
48	.2447E+02	.2315E+01	.1153E+01	-.7438E-08	-.2868E+01	.3810E+01	-.2307E-07	.2635E+00	-.8882E+01	.1123E+01
49	.3374E+02	.2096E+01	.1163E+01	-.2582E-08	-.4400E+01	.4959E+01	-.7880E-08	-.2777E+00	-.7354E+01	.1136E+01
50	.3150E+02	.1879E+01	.1170E+01	.1321E-09	-.4495E+01	.4384E+01	.7885E-09	-.1884E+00	-.6824E+01	.1141E+01
51	.2952E+02	.1663E+01	.1175E+01	.1524E-08	-.4559E+01	.3898E+01	.4888E-08	-.1306E+00	-.6360E+01	.1137E+01
52	.2771E+02	.1448E+01	.1179E+01	.1369E-08	-.4600E+01	.3477E+01	.4201E-08	-.1092E+00	-.5942E+01	.1127E+01
53	.3423E+02	.1234E+01	.1183E+01	.4928E-09	-.6088E+01	.4090E+01	.1456E-08	-.2245E+01	-.4115E+01	.1113E+01
54	.5232E+02	.1208E+01	.1310E+01	.7626E-10	-.1007E+02	.5612E+01	.1750E-10	-.6589E+01	-.1523E+01	.1094E+01

55	.4652E+02	.1176E+01	.1435E+01	-.1924E-10	-.9711E+01	.4305E+01	-.2692E-09	-.7286E+01	-.1561E+01	.1068E+01	
56	.3501E+02	.1141E+01	.1623E+01	-.4293E-10	-.7865E+01	.2655E+01	-.2869E-09	-.9394E+01	-.1261E+01	.1038E+01	
57	.2443E+02	.1103E+01	.1971E+01	-.1087E-10	-.5866E+01	.1413E+01	-.6366E-09	-.1370E+02	-.8642E+00	.1010E+01	
58	.1770E+02	.1070E+01	.2745E+01	-.1305E-09	-.4478E+01	.7497E+00	-.1610E-09	-.2234E+02	-.2118E+00	.9945E+00	
59	.1180E+02	.1079E+01	.4496E+01	-.2226E-09	-.2976E+01	.5699E+00	-.1147E-08	-.2206E+02	.2598E+00	.9945E+00	
60	.8138E+01	.1114E+01	.6484E+01	-.1824E-09	-.1992E+01	.5489E+00	-.9619E-09	-.1613E+02	.3604E+00	.9983E+00	
61	.5745E+01	.1167E+01	.8461E+01	.1720E-09	-.1330E+01	.5494E+00	.2139E-09	-.1132E+02	.3551E+00	.1000E+01	
62	.4140E+01	.1237E+01	.1042E+02	.1003E-08	-.8764E+00	.5445E+00	.2677E-08	-.8092E+01	.3043E+00	.1001E+01	
63	.3152E+01	.1314E+01	.1237E+02	.2218E-08	-.5826E+00	.5371E+00	.6369E-08	-.6120E+01	.2320E+00	.1000E+01	
64	.2564E+01	.1385E+01	.1431E+02	.3363E-08	-.3940E+00	.5283E+00	.1001E-07	-.4973E+01	.1588E+00	.1000E+01	
65	.2204E+01	.1438E+01	.1625E+02	.4009E-08	-.2758E+00	.5164E+00	.1211E-07	-.4318E+01	.9423E-01	.1000E+01	
66	.1833E+01	.1470E+01	.1823E+02	.4640E-08	-.2061E+00	.4642E+00	.1408E-07	-.3986E+01	.8092E-01	.1000E+01	
67	.1488E+01	.1527E+01	.2060E+02	.6489E-08	-.7158E-01	.4219E+00	.2007E-07	-.3537E+01	.6262E-01	.1000E+01	
68	.1505E+01	.1554E+01	.2298E+02	.9495E-08	.1639E-01	.4533E+00	.3056E-07	-.3280E+01	.1125E+01	.1000E+01	
69	.1647E+01	.3022E+01	.2495E+02	.1351E-07	.4210E-01	.5046E+00	.4502E-07	-.2945E+01	.3808E+01	.1000E+01	
70	.1745E+01	.6179E+01	.2656E+02	.1745E-07	.4356E-01	.5307E+00	.5935E-07	-.2712E+01	.7023E+01	.1000E+01	
71	.1599E+01	.1107E+02	.2806E+02	.2192E-07	.7153E-01	.4653E+00	.7537E-07	-.1924E+01	.9844E+01	.1000E+01	
72	.1144E+01	.1849E+02	.2896E+02	.3247E-08	.8741E-01	.2945E+00	.6424E-08	-.8405E+00	.1026E+02	.1000E+01	
73	.3419E+00	.2900E+02	.2953E+02	0.	.8294E-01	0.	0.	-.1371E+00	.4123E+01	.1000E+01	

SECOND INDEX= 27

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9811E+00	.9682E+00	.9882E+00	-.3163E-02	.9535E+00	.1027E+01	.9872E+00	.3436E+01	-.9882E+00	.3163E-02	-.2206E-02
2	.9811E+00	.9682E+00	.9882E+00	-.3163E-02	.9535E+00	.1027E+01	.9872E+00	.3436E+01	-.9882E+00	.3163E-02	-.2206E-02
3	.9680E+00	.9572E+00	.9875E+00	-.5742E-02	.9412E+00	.1029E+01	.9856E+00	.3437E+01	-.9875E+00	.5742E-02	-.3733E-02
4	.9401E+00	.9333E+00	.9860E+00	-.1138E-01	.9148E+00	.1036E+01	.9824E+00	.3439E+01	-.9860E+00	.1138E-01	-.6983E-02
5	.9022E+00	.9000E+00	.9838E+00	-.1941E-01	.8784E+00	.1046E+01	.9782E+00	.3440E+01	-.9840E+00	.2679E-02	-.1140E-01
6	.8637E+00	.8658E+00	.9817E+00	-.2812E-01	.8415E+00	.1057E+01	.9740E+00	.3441E+01	-.9823E+00	-.7655E-02	-.1589E-01
7	.8344E+00	.8392E+00	.9802E+00	-.3533E-01	.8134E+00	.1066E+01	.9713E+00	.3443E+01	-.9809E+00	-.2768E-02	-.1932E-01
8	.8189E+00	.8225E+00	.9794E+00	-.3958E-01	.7967E+00	.1076E+01	.9706E+00	.3438E+01	-.9801E+00	.1533E-02	-.2112E-01
9	.8159E+00	.8133E+00	.9789E+00	-.4091E-01	.7886E+00	.1090E+01	.9725E+00	.3424E+01	-.9796E+00	.2899E-02	-.2147E-01
10	.8205E+00	.8065E+00	.9784E+00	-.4031E-01	.7840E+00	.1109E+01	.9758E+00	.3398E+01	-.9791E+00	.2321E-02	-.2094E-01
11	.8278E+00	.7982E+00	.9775E+00	-.3872E-01	.7784E+00	.1135E+01	.9803E+00	.3362E+01	-.9783E+00	.7872E-03	-.2008E-01
12	.8346E+00	.7862E+00	.9764E+00	-.3672E-01	.7695E+00	.1169E+01	.9856E+00	.3319E+01	-.9771E+00	-.9557E-03	-.1929E-01
13	.8378E+00	.7687E+00	.9749E+00	-.3486E-01	.7555E+00	.1211E+01	.9918E+00	.3271E+01	-.9751E+00	-.2925E-02	-.1892E-01
14	.8320E+00	.7431E+00	.9733E+00	-.3426E-01	.7335E+00	.1261E+01	.9981E+00	.3222E+01	-.9738E+00	-.2989E-02	-.1960E-01
15	.8104E+00	.7058E+00	.9713E+00	-.3663E-01	.6993E+00	.1320E+01	.1004E+01	.3175E+01	-.9740E+00	.8315E-02	-.2211E-01
16	.7691E+00	.6545E+00	.9685E+00	-.4347E-01	.6498E+00	.1392E+01	.1008E+01	.3130E+01	-.9700E+00	.1367E-01	-.2693E-01
17	.7125E+00	.5937E+00	.9645E+00	-.5503E-01	.5899E+00	.1478E+01	.1011E+01	.3087E+01	-.9661E+00	.3366E-03	-.3352E-01
18	.6536E+00	.5356E+00	.9607E+00	-.6947E-01	.5323E+00	.1566E+01	.1013E+01	.3052E+01	-.9631E+00	-.6626E-02	-.4040E-01
19	.6078E+00	.4919E+00	.9579E+00	-.8265E-01	.4893E+00	.1641E+01	.1015E+01	.3027E+01	-.9619E+00	.2230E-02	-.4573E-01
20	.5868E+00	.4684E+00	.9555E+00	-.8967E-01	.4665E+00	.1697E+01	.1017E+01	.3001E+01	-.9625E+00	.4441E-02	-.4818E-01
21	.5964E+00	.4678E+00	.9527E+00	-.8758E-01	.4662E+00	.1727E+01	.1019E+01	.2966E+01	-.9542E+00	-.5526E-02	-.4707E-01
22	.6369E+00	.4900E+00	.9491E+00	-.7648E-01	.4877E+00	.1729E+01	.1021E+01	.2923E+01	-.9572E+00	.8670E-02	-.4234E-01
23	.7044E+00	.5301E+00	.9439E+00	-.5849E-01	.5260E+00	.1713E+01	.1020E+01	.2871E+01	-.9610E+00	.2000E-01	-.3448E-01
24	.7926E+00	.5849E+00	.9385E+00	-.3644E-01	.5784E+00	.1679E+01	.1019E+01	.2824E+01	-.9271E+00	-.1354E-01	-.2419E-01
25	.8936E+00	.6577E+00	.9376E+00	-.1390E-01	.6495E+00	.1607E+01	.1018E+01	.2816E+01	-.8447E+00	-.1162E+00	-.1241E-01
26	.9956E+00	.7502E+00	.9447E+00	.5271E-02	.7432E+00	.1489E+01	.1018E+01	.2870E+01	-.8739E+00	-.1141E+00	-.5124E-03
27	.1076E+01	.8378E+00	.9533E+00	.1875E-01	.8327E+00	.1379E+01	.1018E+01	.2944E+01	-.9294E+00	-.4568E-01	.8892E-02
28	.1128E+01	.8955E+00	.9575E+00	.2763E-01	.8908E+00	.1316E+01	.1017E+01	.2988E+01	-.9489E+00	-.2018E-01	.1489E-01
29	.1168E+01	.9301E+00	.9574E+00	.3515E-01	.9245E+00	.1292E+01	.1016E+01	.2993E+01	-.9481E+00	-.2772E-01	.1955E-01
30	.1218E+01	.9629E+00	.9552E+00	.4399E-01	.9566E+00	.1284E+01	.1016E+01	.2976E+01	-.9469E+00	-.3597E-01	.2538E-01
31	.1284E+01	.1004E+01	.9522E+00	.5448E-01	.9973E+00	.1276E+01	.1017E+01	.2952E+01	-.9530E+00	-.5974E-02	.3317E-01
32	.1360E+01	.1046E+01	.9469E+00	.6525E-01	.1037E+01	.1277E+01	.1017E+01	.2913E+01	-.9516E+00	.6135E-02	.4201E-01
33	.1430E+01	.1074E+01	.9383E+00	.7413E-01	.1059E+01	.1294E+01	.1015E+01	.2855E+01	-.9617E+00	.4063E-01	.5012E-01
34	.1479E+01	.1072E+01	.9247E+00	.7973E-01	.1049E+01	.1341E+01	.1011E+01	.2766E+01	-.9835E+00	.6325E-01	.5585E-01
35	.1499E+01	.1041E+01	.9066E+00	.8117E-01	.1006E+01	.1417E+01	.1006E+01	.2655E+01	-.9232E+00	.1417E-01	.5819E-01
36	.1502E+01	.1005E+01	.8893E+00	.7980E-01	.9594E+00	.1492E+01	.9993E+00	.2556E+01	-.8944E+00	.1602E-02	.5854E-01
37	.1503E+01	.9837E+00	.8774E+00	.7810E-01	.9303E+00	.1538E+01	.9940E+00	.2494E+01	-.8957E+00	.1568E-01	.5870E-01
38	.1507E+01	.9805E+00	.8722E+00	.7735E-01	.9222E+00	.1549E+01	.9899E+00	.2472E+01	-.8848E+00	.9394E-02	.5911E-01
39	.1512E+01	.9995E+00	.8757E+00	.7757E-01	.9395E+00	.1513E+01	.9874E+00	.2502E+01	-.8500E+00	-.2975E-01	.5973E-01
40	.1524E+01	.1047E+01	.8890E+00	.7906E-01	.9898E+00	.1428E+01	.9874E+00	.2590E+01	-.8632E+00	-.3043E-01	.6106E-01
41	.1538E+01	.1118E+01	.9082E+00	.8147E-01	.1067E+01	.1316E+01	.9892E+00	.2721E+01	-.8914E+00	-.2136E-01	.6280E-01
42	.1551E+01	.1200E+01	.9285E+00	.8400E-01	.1157E+01	.1202E+01	.9919E+00	.2870E+01	-.9010E+00	-.3283E-01	.6423E-01
43	.1556E+01	.1277E+01	.9467E+00	.8596E-01	.1245E+01	.1105E+01	.9949E+00	.3014E+01	-.9159E+00	-.3719E-01	.6482E-01

44	.1552E+01	.1340E+01	.9614E+00	.8700E-01	.1317E+01	.1031E+01	.9977E+00	.3139E+01	-.9447E+00	-.2236E-01	.6442E-01
45	.1544E+01	.1381E+01	.9718E+00	.8741E-01	.1367E+01	.9824E+00	.1000E+01	.3230E+01	-.9412E+00	-.3765E-01	.6349E-01
46	.1540E+01	.1403E+01	.9774E+00	.8800E-01	.1394E+01	.9591E+00	.1002E+01	.3278E+01	-.9286E+00	-.5970E-01	.6302E-01
47	.1547E+01	.1410E+01	.9785E+00	.8943E-01	.1403E+01	.9566E+00	.1004E+01	.3283E+01	-.9450E+00	-.4365E-01	.6381E-01
48	.1564E+01	.1409E+01	.9761E+00	.9163E-01	.1402E+01	.9677E+00	.1004E+01	.3257E+01	-.9188E+00	-.7355E-01	.6580E-01
49	.1583E+01	.1405E+01	.9722E+00	.9353E-01	.1395E+01	.9832E+00	.1004E+01	.3221E+01	-.8759E+00	-.1296E+00	.6794E-01
50	.1590E+01	.1397E+01	.9690E+00	.9376E-01	.1384E+01	.9953E+00	.1003E+01	.3194E+01	-.8922E+00	-.1110E+00	.6879E-01
51	.1580E+01	.1385E+01	.9679E+00	.9182E-01	.1370E+01	.1001E+01	.1002E+01	.3186E+01	-.9064E+00	-.9580E-01	.6759E-01
52	.1553E+01	.1366E+01	.9688E+00	.8807E-01	.1352E+01	.1003E+01	.1001E+01	.3194E+01	-.9195E+00	-.8311E-01	.6445E-01
53	.1510E+01	.1339E+01	.9714E+00	.8263E-01	.1326E+01	.1003E+01	.1002E+01	.3213E+01	-.7714E+00	-.5073E+00	.5950E-01
54	.1441E+01	.1293E+01	.9755E+00	.7361E-01	.1283E+01	.1006E+01	.1003E+01	.3243E+01	-.1343E+01	-.1594E+01	.5143E-01
55	.1328E+01	.1215E+01	.9811E+00	.5738E-01	.1209E+01	.1011E+01	.1003E+01	.3290E+01	-.1680E+01	-.1871E+01	.3828E-01
56	.1183E+01	.1118E+01	.9877E+00	.3353E-01	.1113E+01	.1012E+01	.1006E+01	.3363E+01	-.2381E+01	-.2527E+01	.2138E-01
57	.1045E+01	.1029E+01	.9947E+00	.7720E-02	.1024E+01	.1004E+01	.9971E+00	.3454E+01	-.3754E+01	-.3853E+01	.5239E-02
58	.9844E+00	.9904E+00	.1001E+01	-.3585E-02	.9901E+00	.9978E+00	.9992E+00	.3513E+01	-.6472E+01	-.6539E+01	-.1820E-02
59	.9882E+00	.9925E+00	.1002E+01	-.1982E-02	.9938E+00	.9987E+00	.1001E+01	.3513E+01	-.6209E+01	-.6294E+01	-.1376E-02
60	.9983E+00	.9988E+00	.1000E+01	-.5704E-04	.9994E+00	.1000E+01	.1000E+01	.3502E+01	-.4290E+01	-.4418E+01	-.1971E-03
61	.1001E+01	.1001E+01	.9999E+00	.2565E-03	.1001E+01	.1000E+01	.9999E+00	.3499E+01	-.2790E+01	-.2932E+01	.1439E-03
62	.1001E+01	.1001E+01	.9998E+00	.9402E-04	.1000E+01	.1000E+01	.9999E+00	.3499E+01	-.1802E+01	-.2081E+01	.1008E-03
63	.1000E+01	.1000E+01	.9999E+00	-.2087E-04	.1000E+01	.1000E+01	.9999E+00	.3500E+01	-.1182E+01	-.1566E+01	.2084E-04
64	.9999E+00	.9999E+00	.1000E+01	-.4772E-04	.9999E+00	.1000E+01	.1000E+01	.3500E+01	-.7956E+00	-.1290E+01	-.1645E-04
65	.9998E+00	.9999E+00	.1000E+01	-.4005E-04	.9999E+00	.1000E+01	.1000E+01	.3500E+01	-.5627E+00	-.1154E+01	-.2376E-04
66	.9998E+00	.9999E+00	.1000E+01	-.2921E-04	.9999E+00	.1000E+01	.1000E+01	.3500E+01	-.4734E+00	-.1111E+01	-.2018E-04
67	.9999E+00	.9999E+00	.1000E+01	-.2140E-04	.9999E+00	.1000E+01	.1000E+01	.3500E+01	-.1804E+00	-.1018E+01	-.1392E-04
68	.1000E+01	.1000E+01	.1000E+01	-.9771E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.3646E-01	-.9890E+00	-.4576E-05
69	.1000E+01	.1000E+01	.1000E+01	.1536E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1203E+00	-.9079E+00	.1139E-04
70	.1000E+01	.1000E+01	.1000E+01	.5668E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1775E+00	-.8369E+00	.3465E-04
71	.1001E+01	.1000E+01	.1000E+01	.1036E-03	.1000E+01	.9999E+00	.1000E+01	.3500E+01	.4336E+00	-.5807E+00	.5956E-04
72	.1001E+01	.1001E+01	.1000E+01	.1347E-03	.1001E+01	.9999E+00	.1000E+01	.3500E+01	.7638E+00	-.2486E+00	.7562E-04
73	.1001E+01	.1001E+01	.1000E+01	.1347E-03	.1001E+01	.9999E+00	.1000E+01	.3500E+01	.1001E+01	-.4706E-01	.7562E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.2915E+01	.9000E+02	.1880E+00	0.	-.2500E+00	-.4639E-11	0.	.1636E-10	-.1166E+02	.1013E+01
2	.2915E+01	.8600E+02	.1880E+00	-.4177E-06	-.2500E+00	.1891E-08	-.1986E-05	.5400E-11	-.1166E+02	.1013E+01
3	.2915E+01	.8200E+02	.1880E+00	-.4651E-06	-.2500E+00	.7574E-08	-.2068E-05	-.1553E-13	-.1166E+02	.1011E+01
4	.2915E+01	.7800E+02	.1880E+00	-.6794E-06	-.2500E+00	.2979E-07	-.2866E-05	.6601E-13	-.1166E+02	.1007E+01
5	.2915E+01	.7400E+02	.1880E+00	-.8206E-06	-.2500E+00	.1146E-06	-.3366E-05	-.1983E+00	-.1166E+02	.1002E+01
6	.2974E+01	.7000E+02	.3241E+00	-.8609E-06	-.2500E+00	.4645E-06	-.3490E-05	-.4336E+00	-.1190E+02	.9975E+00
7	.3046E+01	.6600E+02	.4796E+00	-.8369E-06	-.2500E+00	.1983E-05	-.3392E-05	-.4735E+00	-.1218E+02	.9943E+00
8	.3123E+01	.6200E+02	.6350E+00	-.7419E-06	-.2500E+00	.8902E-05	-.3016E-05	-.4853E+00	-.1249E+02	.9956E+00
9	.3205E+01	.5800E+02	.7904E+00	-.6112E-06	-.2500E+00	.4212E-04	-.2491E-05	-.4978E+00	-.1282E+02	.1003E+01
10	.3294E+01	.5400E+02	.9457E+00	-.5193E-06	-.2500E+00	.2110E-03	-.2118E-05	-.5115E+00	-.1317E+02	.1017E+01
11	.3387E+01	.5000E+02	.1101E+01	-.5128E-06	-.2501E+00	.1128E-02	-.2063E-05	-.5255E+00	-.1354E+02	.1037E+01
12	.3500E+01	.4600E+02	.1256E+01	-.5877E-06	-.2507E+00	.6581E-02	-.2323E-05	-.5383E+00	-.1395E+02	.1062E+01
13	.4146E+01	.4203E+02	.1409E+01	-.6204E-06	-.2841E+00	.5203E-01	-.2450E-05	-.5613E+00	-.1449E+02	.1090E+01
14	.4930E+01	.3901E+02	.1527E+01	-.5817E-06	-.3330E+00	.2840E-01	-.2288E-05	-.5647E+00	-.1476E+02	.1120E+01
15	.6198E+01	.3604E+02	.1638E+01	-.4383E-06	-.3966E+00	.1126E+00	-.1705E-05	-.4558E+00	-.1550E+02	.1148E+01
16	.7532E+01	.3401E+02	.1674E+01	-.3058E-06	-.4942E+00	.3948E-01	-.1190E-05	-.4680E+00	-.1520E+02	.1175E+01
17	.7667E+01	.3201E+02	.1762E+01	-.2365E-06	-.4988E+00	.2575E-01	-.9162E-06	-.8691E+00	-.1533E+02	.1200E+01
18	.7836E+01	.3001E+02	.1900E+01	-.1567E-06	-.5005E+00	.4684E-01	-.6300E-06	-.1231E+01	-.1554E+02	.1220E+01
19	.8206E+01	.2804E+02	.2076E+01	-.4815E-07	-.5004E+00	.1400E+00	-.2270E-06	-.1346E+01	-.1602E+02	.1236E+01
20	.1313E+02	.2611E+02	.2228E+01	.4313E-07	-.6227E+00	.5853E+00	.1362E-06	-.1753E+01	-.1944E+02	.1253E+01
21	.1741E+02	.2508E+02	.2343E+01	.6860E-07	-.9382E+00	.5900E+00	.2364E-06	-.1699E+01	-.1749E+02	.1275E+01
22	.1940E+02	.2410E+02	.2424E+01	.6161E-07	-.9639E+00	.7994E+00	.1883E-06	-.1388E+01	-.1898E+02	.1300E+01
23	.2524E+02	.2312E+02	.2486E+01	.2225E-07	-.9588E+00	.1288E+01	.2851E-07	-.1199E+01	-.2472E+02	.1329E+01
24	.4554E+02	.2214E+02	.2519E+01	-.1090E-07	-.1213E+01	.2690E+01	-.7795E-07	-.1547E+01	-.3410E+02	.1355E+01
25	.6162E+02	.2163E+02	.2554E+01	-.2903E-07	-.2195E+01	.3287E+01	-.1396E-06	-.2297E+01	-.2463E+02	.1359E+01
26	.7047E+02	.2134E+02	.2593E+01	-.3598E-07	-.3348E+01	.2890E+01	-.1587E-06	-.1816E+01	-.1948E+02	.1327E+01
27	.7039E+02	.2107E+02	.2606E+01	-.3881E-07	-.3702E+01	.2307E+01	-.1708E-06	-.4039E+00	-.1875E+02	.1285E+01
28	.6826E+02	.2081E+02	.2605E+01	-.3610E-07	-.3801E+01	.1800E+01	-.1619E-06	.1786E+00	-.1804E+02	.1259E+01
29	.6541E+02	.2055E+02	.2600E+01	-.3409E-07	-.3779E+01	.1348E+01	-.1586E-06	.1655E+00	-.1737E+02	.1255E+01
30	.6114E+02	.2028E+02	.2600E+01	-.3470E-07	-.3638E+01	.8652E+00	-.1663E-06	.1600E+00	-.1685E+02	.1265E+01
31	.4534E+02	.1999E+02	.2595E+01	-.4409E-07	-.2763E+01	.1865E+00	-.2158E-06	.8394E+00	-.1646E+02	.1279E+01
32	.3797E+02	.1955E+02	.2563E+01	-.4646E-07	-.2205E+01	.7995E+00	-.2342E-06	.1325E+01	-.1770E+02	.1300E+01
33	.2613E+02	.1906E+02	.2525E+01	-.3424E-07	-.1487E+01	.6842E+00	-.2084E-06	.2158E+01	-.1857E+02	.1331E+01

34	.3345E+02	.1813E+02	.2397E+01	.3783E-07	-.1258E+01	.1820E+01	.9048E-07	.3802E+01	-.3209E+02	.1379E+01	
35	.3641E+02	.1714E+02	.2298E+01	.1233E-06	-.1225E+01	.2238E+01	.4416E-06	.3448E+01	-.3602E+02	.1440E+01	
36	.3869E+02	.1615E+02	.2208E+01	.1750E-06	-.1242E+01	.2580E+01	.6588E-06	.3466E+01	-.3835E+02	.1495E+01	
37	.2756E+02	.1516E+02	.2119E+01	.2210E-06	-.8598E+00	.1968E+01	.8597E-06	.3871E+01	-.4091E+02	.1528E+01	
38	.3057E+02	.1318E+02	.1927E+01	.6549E-08	-.7381E+00	.2576E+01	.5271E-07	.5497E+01	-.6060E+02	.1537E+01	
39	.2831E+02	.1120E+02	.1759E+01	-.2391E-06	-.7879E+00	.2622E+01	-.8358E-06	.4015E+01	-.4929E+02	.1513E+01	
40	.2423E+02	.9702E+01	.1643E+01	-.3726E-06	-.8558E+00	.2340E+01	-.1345E-05	.2887E+01	-.3621E+02	.1455E+01	
41	.2110E+02	.8208E+01	.1521E+01	-.2674E-06	-.8463E+00	.2132E+01	-.1018E-05	.2610E+01	-.3151E+02	.1376E+01	
42	.2272E+02	.6715E+01	.1396E+01	-.5550E-07	-.9928E+00	.2404E+01	-.2311E-06	.2256E+01	-.2835E+02	.1293E+01	
43	.2341E+02	.5713E+01	.1322E+01	.3467E-07	-.1187E+01	.2465E+01	.1292E-06	.1792E+01	-.2344E+02	.1218E+01	
44	.2161E+02	.4712E+01	.1243E+01	.5350E-07	-.1187E+01	.2286E+01	.2135E-06	.1759E+01	-.2160E+02	.1159E+01	
45	.2682E+02	.3714E+01	.1160E+01	.3904E-07	-.1540E+01	.2869E+01	.1413E-06	.1498E+01	-.2020E+02	.1118E+01	
46	.3355E+02	.3206E+01	.1131E+01	.3022E-07	-.2180E+01	.3457E+01	.1065E-06	.1031E+01	-.1702E+02	.1098E+01	
47	.3113E+02	.2699E+01	.1098E+01	.3389E-07	-.2190E+01	.3108E+01	.1196E-06	.1073E+01	-.1574E+02	.1097E+01	
48	.4028E+02	.2195E+01	.1062E+01	.2036E-07	-.2994E+01	.3935E+01	.7265E-07	.7405E+00	-.1443E+02	.1110E+01	
49	.5768E+02	.1983E+01	.1061E+01	.7147E-08	-.4772E+01	.5308E+01	.2587E-07	.9578E-01	-.1219E+02	.1126E+01	
50	.5331E+02	.1772E+01	.1059E+01	.3203E-08	-.4819E+01	.4631E+01	.1164E-07	.1723E+00	-.1123E+02	.1138E+01	
51	.4965E+02	.1562E+01	.1055E+01	.1771E-08	-.4846E+01	.4077E+01	.5807E-08	.2130E+00	-.1042E+02	.1141E+01	
52	.4647E+02	.1352E+01	.1050E+01	.9488E-09	-.4861E+01	.3612E+01	.2713E-08	.2260E+00	-.9728E+01	.1136E+01	
53	.5988E+02	.1143E+01	.1045E+01	.1782E-09	-.6685E+01	.4411E+01	.3494E-09	-.3329E+01	-.6760E+01	.1128E+01	
54	.1029E+03	.1126E+01	.1161E+01	-.3278E-10	-.1240E+02	.6757E+01	-.3761E-09	-.1176E+02	-.1891E+01	.1115E+01	
55	.9227E+02	.1106E+01	.1274E+01	-.1089E-10	-.1202E+02	.5167E+01	-.4200E-09	-.1334E+02	-.1943E+01	.1093E+01	
56	.6770E+02	.1084E+01	.1451E+01	.3120E-10	-.9464E+01	.3057E+01	.5074E-10	-.1736E+02	-.1545E+01	.1058E+01	
57	.4606E+02	.1060E+01	.1787E+01	-.2614E-09	-.6867E+01	.1542E+01	-.1396E-08	-.2534E+02	-.1016E+01	.1016E+01	
58	.3276E+02	.1040E+01	.2551E+01	-.2138E-10	-.5140E+01	.7634E+00	.4855E-09	-.4119E+02	-.2549E+00	.9940E+00	
59	.2109E+02	.1045E+01	.4302E+01	-.4714E-10	-.3310E+01	.5569E+00	-.1424E-08	-.3948E+02	.2720E+00	.9957E+00	
60	.1408E+02	.1066E+01	.6295E+01	-.1374E-09	-.2155E+01	.5312E+00	-.5378E-09	-.2803E+02	.3735E+00	.9995E+00	
61	.9684E+01	.1098E+01	.8282E+01	-.2717E-09	-.1408E+01	.5311E+00	-.7415E-09	-.1919E+02	.3618E+00	.1000E+01	
62	.6845E+01	.1140E+01	.1026E+02	-.3766E-09	-.9138E+00	.5277E+00	-.1167E-08	-.1350E+02	.3056E+00	.1000E+01	
63	.5151E+01	.1187E+01	.1223E+02	-.3678E-09	-.6018E+00	.5228E+00	-.1316E-08	-.1012E+02	.2303E+00	.1000E+01	
64	.4176E+01	.1230E+01	.1419E+02	-.2879E-09	-.4053E+00	.5172E+00	-.1178E-08	-.8195E+01	.1556E+00	.9999E+00	
65	.3609E+01	.1262E+01	.1615E+02	-.3294E-09	-.2848E+00	.5099E+00	-.1431E-08	-.7128E+01	.9016E-01	.9999E+00	
66	.2998E+01	.1280E+01	.1814E+02	-.6179E-09	-.2148E+00	.4563E+00	-.2624E-08	-.6607E+01	.7677E-01	.1000E+01	
67	.2419E+01	.1313E+01	.2056E+02	-.6981E-09	-.7438E-01	.4130E+00	-.3365E-08	-.5867E+01	.5834E-01	.1000E+01	
68	.2479E+01	.1328E+01	.2299E+02	.9430E-09	.1567E-01	.4478E+00	.1879E-08	-.5472E+01	.1833E+01	.1000E+01	
69	.2751E+01	.2792E+01	.2497E+02	.4461E-08	.4112E-01	.5045E+00	.1393E-07	-.4934E+01	.6358E+01	.1000E+01	
70	.2934E+01	.5950E+01	.2658E+02	.8887E-08	.4106E-01	.5347E+00	.2946E-07	-.4579E+01	.1182E+02	.1000E+01	
71	.2685E+01	.1085E+02	.2810E+02	.1400E-07	.6888E-01	.4705E+00	.4749E-07	-.3281E+01	.1657E+02	.1000E+01	
72	.1882E+01	.1829E+02	.2902E+02	.1747E-08	.8380E-01	.2955E+00	.2990E-08	-.1526E+01	.1708E+02	.1000E+01	
73	.5440E+00	.2900E+02	.2972E+02	0.	.8105E-01	0.	0.	-.3167E+00	.6712E+01	.1000E+01	

SECOND INDEX= 28

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9877E+00	.9088E+00	.9699E+00	-.1222E-02	.8849E+00	.1129E+01	.9830E+00	.3256E+01	-.9699E+00	.1222E-02	-.1437E-02
2	.9877E+00	.9088E+00	.9699E+00	-.1222E-02	.8849E+00	.1129E+01	.9830E+00	.3256E+01	-.9699E+00	.1222E-02	-.1436E-02
3	.9755E+00	.8985E+00	.9690E+00	-.3568E-02	.8734E+00	.1133E+01	.9815E+00	.3255E+01	-.9690E+00	.3568E-02	-.2862E-02
4	.9461E+00	.8734E+00	.9670E+00	-.9356E-02	.8460E+00	.1143E+01	.9781E+00	.3252E+01	-.9670E+00	.9356E-02	-.6291E-02
5	.9035E+00	.8364E+00	.9639E+00	-.1814E-01	.8059E+00	.1160E+01	.9732E+00	.3247E+01	-.9641E+00	.1598E-02	-.1125E-01
6	.8603E+00	.7986E+00	.9607E+00	-.2775E-01	.7654E+00	.1179E+01	.9683E+00	.3241E+01	-.9614E+00	-.7590E-02	-.1629E-01
7	.8297E+00	.7711E+00	.9586E+00	-.3522E-01	.7367E+00	.1194E+01	.9654E+00	.3237E+01	-.9594E+00	-.2391E-02	-.1986E-01
8	.8164E+00	.7560E+00	.9575E+00	-.3894E-01	.7219E+00	.1208E+01	.9652E+00	.3228E+01	-.9583E+00	.1380E-02	-.2141E-01
9	.8161E+00	.7483E+00	.9568E+00	-.3957E-01	.7156E+00	.1225E+01	.9674E+00	.3210E+01	-.9576E+00	.2055E-02	-.2145E-01
10	.8212E+00	.7416E+00	.9559E+00	-.3880E-01	.7109E+00	.1248E+01	.9709E+00	.3182E+01	-.9566E+00	.1328E-02	-.2085E-01
11	.8268E+00	.7316E+00	.9542E+00	-.3761E-01	.7033E+00	.1281E+01	.9752E+00	.3144E+01	-.9550E+00	.2090E-03	-.2019E-01
12	.8316E+00	.7174E+00	.9518E+00	-.3608E-01	.6917E+00	.1324E+01	.9803E+00	.3096E+01	-.9525E+00	-.1089E-02	-.1964E-01
13	.8350E+00	.6992E+00	.9488E+00	-.3410E-01	.6765E+00	.1378E+01	.9863E+00	.3041E+01	-.9490E+00	-.3078E-02	-.1925E-01
14	.8328E+00	.6756E+00	.9454E+00	-.3244E-01	.6561E+00	.1442E+01	.9927E+00	.2982E+01	-.9458E+00	-.4269E-02	-.1950E-01
15	.8161E+00	.6421E+00	.9414E+00	-.3325E-01	.6253E+00	.1517E+01	.9965E+00	.2924E+01	-.9433E+00	.5468E-02	-.2145E-01
16	.7765E+00	.5930E+00	.9355E+00	-.3894E-01	.5778E+00	.1614E+01	.1002E+01	.2864E+01	-.9368E+00	.1029E-01	-.2607E-01
17	.7173E+00	.5321E+00	.9273E+00	-.5026E-01	.5172E+00	.1735E+01	.1003E+01	.2799E+01	-.9287E+00	-.2617E-02	-.3296E-01
18	.6554E+00	.4737E+00	.9189E+00	-.6492E-01	.4592E+00	.1865E+01	.1004E+01	.2741E+01	-.9211E+00	-.8397E-02	-.4018E-01
19	.6098E+00	.4313E+00	.9125E+00	-.7783E-01	.4177E+00	.1979E+01	.1006E+01	.2696E+01	-.9156E+00	-.1433E-02	-.4550E-01
20	.5907E+00	.4091E+00	.9079E+00	-.8426E-01	.3987E+00	.2064E+01	.1009E+01	.2656E+01	-.9126E+00	.1297E-02	-.4774E-01
21	.6007E+00	.4077E+00	.9040E+00	-.8249E-01	.3957E+00	.2110E+01	.1012E+01	.2617E+01	-.9054E+00	-.5030E-02	-.4657E-01
22	.6400E+00	.4262E+00	.9000E+00	-.7276E-01	.4135E+00	.2112E+01	.1014E+01	.2579E+01	-.9038E+00	.1576E-02	-.4199E-01

23	.7053E+00	.4614E+00	.8953E+00	-.5641E-01	.4467E+00	.2083E+01	.1014E+01	.2539E+01	-.9029E+00	.7520E-02	-.3437E-01
24	.7905E+00	.5119E+00	.8920E+00	-.3608E-01	.4943E+00	.2019E+01	.1014E+01	.2514E+01	-.8821E+00	-.1188E-01	-.2443E-01
25	.8877E+00	.5807E+00	.8960E+00	-.1538E-01	.5615E+00	.1900E+01	.1013E+01	.2537L+01	-.8316E+00	-.7985E-01	-.1309E-01
26	.9895E+00	.6702E+00	.9090E+00	.2912E-02	.6522E+00	.1733E+01	.1015E+01	.2619E+01	-.8602E+00	-.8064E-01	-.1229E-02
27	.1071E+01	.7556E+00	.9226E+00	.1606E-01	.7396E+00	.1585E+01	.1015E+01	.2713E+01	-.9077E+00	-.2924E-01	.8266E-02
28	.1117E+01	.8081E+00	.9291E+00	.2387E-01	.7926E+00	.1505E+01	.1014E+01	.2767E+01	-.9259E+00	-.8091E-02	.1362E-01
29	.1146E+01	.8335E+00	.9294E+00	.2951E-01	.8167E+00	.1478E+01	.1012E+01	.2776E+01	-.9245E+00	-.1597E-01	.1699E-01
30	.1188E+01	.8582E+00	.9271E+00	.3701E-01	.8402E+00	.1472E+01	.1013E+01	.2760E+01	-.9221E+00	-.2434E-01	.2191E-01
31	.1256E+01	.8962E+00	.9237E+00	.4772E-01	.8772E+00	.1465E+01	.1014E+01	.2734E+01	-.9248E+00	-.2911E-02	.2989E-01
32	.1342E+01	.9380E+00	.9171E+00	.5996E-01	.9164E+00	.1468E+01	.1015E+01	.2689E+01	-.9208E+00	.4357E-02	.3991E-01
33	.1424E+01	.9669E+00	.9057E+00	.7043E-01	.9394E+00	.1493E+01	.1013E+01	.2620E+01	-.9211E+00	.2547E-01	.4950E-01
34	.1482E+01	.9651E+00	.8877E+00	.7692E-01	.9277E+00	.1558E+01	.1009E+01	.2517E+01	-.9252E+00	.3869E-01	.5620E-01
35	.1502E+01	.9317E+00	.8638E+00	.7792E-01	.8817E+00	.1658E+01	.1001E+01	.2391E+01	-.8733E+00	.6513E-02	.5854E-01
36	.1502E+01	.8941E+00	.8409E+00	.7552E-01	.8324E+00	.1757E+01	.9930E+00	.2280E+01	-.8424E+00	-.1977E-02	.5853E-01
37	.1503E+01	.8719E+00	.8245E+00	.7319E-01	.8019E+00	.1821E+01	.9863E+00	.2206E+01	-.8360E+00	.8633E-02	.5868E-01
38	.1508E+01	.8672E+00	.8167E+00	.7215E-01	.7918E+00	.1841E+01	.9814E+00	.2176E+01	-.8254E+00	.5675E-02	.5926E-01
39	.1511E+01	.8835E+00	.8211E+00	.7196E-01	.8058E+00	.1797E+01	.9782E+00	.2206E+01	-.8093E+00	-.1531E-01	.5959E-01
40	.1520E+01	.9290E+00	.8388E+00	.7349E-01	.8532E+00	.1686E+01	.9779E+00	.2304E+01	-.8273E+00	-.1523E-01	.6070E-01
41	.1537E+01	.1000E+01	.8645E+00	.7675E-01	.9301E+00	.1537E+01	.9802E+00	.2450E+01	-.8565E+00	-.1193E-01	.6258E-01
42	.1550E+01	.1086E+01	.8923E+00	.8061E-01	.1025E+01	.1381E+01	.9837E+00	.2625E+01	-.8748E+00	-.2215E-01	.6419E-01
43	.1557E+01	.1175E+01	.9180E+00	.8370E-01	.1125E+01	.1242E+01	.9875E+00	.2803E+01	-.8973E+00	-.2626E-01	.6500E-01
44	.1554E+01	.1257E+01	.9400E+00	.8545E-01	.1218E+01	.1129E+01	.9911E+00	.2970E+01	-.9282E+00	-.1689E-01	.6463E-01
45	.1543E+01	.1321E+01	.9573E+00	.8611E-01	.1293E+01	.1045E+01	.9946E+00	.3113E+01	-.9383E+00	-.2494E-01	.6335E-01
46	.1534E+01	.1366E+01	.9692E+00	.8656E-01	.1348E+01	.9912E+00	.9978E+00	.3214E+01	-.9397E+00	-.3764E-01	.6227E-01
47	.1536E+01	.1394E+01	.9755E+00	.8786E-01	.1382E+01	.9654E+00	.1001E+01	.3265E+01	-.9559E+00	-.2737E-01	.6256E-01
48	.1554E+01	.1408E+01	.9766E+00	.9032E-01	.1400E+01	.9620E+00	.1003E+01	.3268E+01	-.9405E+00	-.4799E-01	.6455E-01
49	.1577E+01	.1413E+01	.9740E+00	.9301E-01	.1403E+01	.9723E+00	.1003E+01	.3241E+01	-.9100E+00	-.8728E-01	.6731E-01
50	.1593E+01	.1409E+01	.9703E+00	.9427E-01	.1396E+01	.9856E+00	.1003E+01	.3209E+01	-.9190E+00	-.7559E-01	.6915E-01
51	.1591E+01	.1398E+01	.9676E+00	.9324E-01	.1382E+01	.9954E+00	.1001E+01	.3189E+01	-.9271E+00	-.6500E-01	.6898E-01
52	.1574E+01	.1383E+01	.9671E+00	.9037E-01	.1366E+01	.9995E+00	.9999E+00	.3187E+01	-.9355E+00	-.5525E-01	.6691E-01
53	.1547E+01	.1366E+01	.9686E+00	.8669E-01	.1349E+01	.9999E+00	.9998E+00	.3198E+01	-.7723E+00	-.4882E+00	.6374E-01
54	.1505E+01	.1338E+01	.9717E+00	.8174E-01	.1325E+01	.1001E+01	.1001E+01	.3218E+01	-.1450E+01	-.1729E+01	.5893E-01
55	.1419E+01	.1278E+01	.9769E+00	.7081E-01	.1269E+01	.1007E+01	.1003E+01	.3253E+01	-.1842E+01	-.2067E+01	.4885E-01
56	.1255E+01	.1166E+01	.9846E+00	.4584E-01	.1160E+01	.1013E+01	.1002E+01	.3325E+01	-.2624E+01	-.2794E+01	.2972E-01
57	.1052E+01	.1034E+01	.9938E+00	.8917E-02	.1028E+01	.1005E+01	.9965E+00	.3447E+01	-.4140E+01	-.4242E+01	.6114E-02
58	.9833E+00	.9896E+00	.1001E+01	-.3564E-02	.9900E+00	.9978E+00	.9998E+00	.3515E+01	-.7104E+01	-.7167E+01	-.1942E-02
59	.9926E+00	.9952E+00	.1001E+01	-.1097E-02	.9963E+00	.9993E+00	.1001E+01	.3508E+01	-.6665E+01	-.6743E+01	-.8572E-03
60	.1000E+01	.1000E+01	.1000E+01	.1246E-03	.1000E+01	.1000E+01	1000E+01	.3500E+01	-.4519E+01	-.4637E+01	.2358E-04
61	.1001E+01	.1001E+01	.9999E+00	.1050E-03	.1000E+01	.1000E+01	.9999E+00	.3499E+01	-.2901E+01	-.3079E+01	.9963E-04
62	.1000E+01	.1000E+01	.1000E+01	-.4480E-05	.1000E+01	.1000E+01	.9999E+00	.3500E+01	-.1858E+01	-.2122E+01	.2385E-04
63	.9999E+00	.9999E+00	.1000E+01	-.2582E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1213E+01	-.1583E+01	-.1220E-04
64	.9999E+00	.9999E+00	.1000E+01	-.1544E-04	.9999E+00	.1000E+01	.1000E+01	.3500E+01	-.8145E+00	-.1297E+01	-.1586E-04
65	.9999E+00	.9999E+00	.1000E+01	-.6480E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5763E+00	-.1158E+01	-.1091E-04
66	.9999E+00	.1000E+01	.1000E+01	-.4453E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.4888E+00	-.1116E+01	-.6789E-05
67	.1000E+01	.1000E+01	.1000E+01	-.6324E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1866E+00	-.1018E+01	-.4391E-05
68	.1000E+01	.1000E+01	.1000E+01	-.5000E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.3570E-01	-.9894E+00	-.5967E-06
69	.1000E+01	.1000E+01	.1000E+01	.9018E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1187E+00	-.9092E+00	.8960E-05
70	.1000E+01	.1000E+01	.1000E+01	.4158E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1711E+00	-.8427E+00	.2683E-04
71	.1000E+01	.1000E+01	.1000E+01	.8515E-04	.1000E+01	.9999E+00	.1000E+01	.3500E+01	.4242E+00	-.5898E+00	.4910E-04
72	.1001E+01	.1001E+01	.1000E+01	.1172E-03	.1000E+01	.9998E+00	.1000E+01	.3500E+01	.7496E+00	-.2631E+00	.6493E-04
73	.1001E+01	.1001E+01	.1000E+01	.1172E-03	.1000E+01	.9998E+00	.1000E+01	.3500E+01	.1002E+01	-.5547E-01	.6493E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.4469E+01	.9000E+02	.1202E+00	0.	-.2500E+00	.4065E-11	0.	.1750E-10	-.1788E+02	.1087E+01
2	.4469E+01	.8600E+02	.1202E+00	-.1733E-06	-.2500E+00	.1929E-08	-.9862E-06	.5769E-11	-.1788E+02	.1087E+01
3	.4469E+01	.8200E+02	.1202E+00	-.1984E-06	-.2500E+00	.7595E-08	-.9032E-06	-.2382E-13	-.1788E+02	.1086E+01
4	.4469E+01	.7800E+02	.1202E+00	-.3167E-06	-.2500E+00	.2986E-07	-.1261E-05	.7244E-13	-.1788E+02	.1083E+01
5	.4469E+01	.7400E+02	.1202E+00	-.3806E-06	-.2500E+00	.1147E-06	-.1429E-05	-.3068E+00	-.1788E+02	.1080E+01
6	.4549E+01	.7000E+02	.2575E+00	-.3859E-06	-.2500E+00	.4645E-06	-.1420E-05	-.6693E+00	-.1819E+02	.1077E+01
7	.4645E+01	.6600E+02	.4145E+00	-.4074E-06	-.2500E+00	.1901E-05	-.1511E-05	-.7290E+00	-.1854E+02	.1076E+01
8	.4748E+01	.6200E+02	.5714E+00	-.4648E-06	-.2500E+00	.8900E-05	-.1805E-05	-.7448E+00	-.1899E+02	.1080E+01
9	.4857E+01	.5800E+02	.7283E+00	-.5151E-06	-.2500E+00	.4211E-04	-.2043E-05	-.7618E+00	-.1943E+02	.1091E+01
10	.4975E+01	.5400E+02	.8851E+00	-.5725E-06	-.2500E+00	.2109E-03	-.2260E-05	-.7801E+00	-.1990E+02	.1107E+01
11	.5097E+01	.5000E+02	.1042E+01	-.7187E-06	-.2500E+00	.1127E-02	-.2818E-05	-.7989E+00	-.2038E+02	.1130E+01
12	.5242E+01	.4600E+02	.1199E+01	-.9415E-06	-.2504E+00	.6589E-02	-.3685E-05	-.8168E+00	-.2092E+02	1159E+01

13	.6197E+01	.4202E+02	.1354E+01	-.9794E-06	-.2839E+00	.5341E-01	-.3864E-05	-.8483E+00	-.2167E+02	.1194E+01
14	.7337E+01	.3901E+02	.1472E+01	-.8483E-06	-.3328E+00	.2852E-01	-.3325E-05	-.8532E+00	-.2197E+02	.1233E+01
15	.9229E+01	.3603E+02	.1586E+01	-.5904E-06	-.3965E+00	.1162E+00	-.2282E-05	-.6853E+00	-.2308E+02	.1271E+01
16	.1121E+02	.3401E+02	.1621E+01	-.4062E-06	-.4957E+00	.3962E-01	-.1605E-05	-.6909E+00	-.2256E+02	.1309E+01
17	.1136E+02	.3201E+02	.1709E+01	-.3591E-06	-.4987E+00	.2580E-01	-.1544E-05	-.1295E+01	-.2271E+02	.1348E+01
18	.1156E+02	.3001E+02	.1849E+01	-.3142E-06	-.4991E+00	.4688E-01	-.1500E-05	-.1835E+01	-.2298E+02	.1384E+01
19	.1202E+02	.2803E+02	.2027E+01	-.2262E-06	-.4958E+00	.1412E+00	-.1226E-05	-.2055E+01	-.2366E+02	.1414E+01
20	.1969E+02	.2607E+02	.2191E+01	-.7581E-07	-.6168E+00	.6068E+00	-.5375E-06	-.2685E+01	-.2928E+02	.1444E+01
21	.2580E+02	.2505E+02	.2300E+01	-.2495E-07	-.9398E+00	.5932E+00	-.2946E-06	-.2491E+01	-.2588E+02	.1473E+01
22	.2867E+02	.2407E+02	.2384E+01	-.3035E-07	-.9505E+00	.8117E+00	-.2870E-06	-.2243E+01	-.2824E+02	.1502E+01
23	.3760E+02	.2308E+02	.2456E+01	-.4000E-07	-.9376E+00	.1321E+01	-.2702E-06	-.2142E+01	-.3709E+02	.1529E+01
24	.7010E+02	.2209E+02	.2498E+01	-.7485E-08	-.1204E+01	.2824E+01	-.7078E-07	-.2429E+01	-.5254E+02	.1544E+01
25	.9601E+02	.2158E+02	.2525E+01	.1085E-07	-.2303E+01	.3470E+01	.3032E-07	-.2701E+01	-.3763E+02	.1529E+01
26	.1071E+03	.2131E+02	.2554E+01	.4407E-08	-.3534E+01	.2876E+01	.2106E-07	-.1993E+01	-.2867E+02	.1476E+01
27	.1053E+03	.2105E+02	.2563E+01	-.1901E-07	-.3812E+01	.2264E+01	-.7149E-07	-.2746E+00	-.2746E+02	.1417E+01
28	.1019E+03	.2079E+02	.2559E+01	-.3621E-07	-.3886E+01	.1758E+01	-.1385E-06	.4711E+00	-.2643E+02	.1382E+01
29	.9769E+02	.2053E+02	.2553E+01	-.4605E-07	-.3860E+01	.1301E+01	-.1789E-06	.3957E+00	-.2544E+02	.1375E+01
30	.9201E+02	.2027E+02	.2551E+01	-.5181E-07	-.3742E+01	.7967E+00	-.2030E-06	.3531E+00	-.2466E+02	.1384E+01
31	.6575E+02	.1999E+02	.2546E+01	-.6433E-07	-.2729E+01	.7226E-02	-.2544E-06	.1169E+01	-.2409E+02	.1402E+01
32	.5482E+02	.1954E+02	.2516E+01	-.4468E-07	-.2156E+01	.8015E+00	-.1767E-06	.1820E+01	-.2611E+02	.1431E+01
33	.3751E+02	.1904E+02	.2479E+01	.2616E-07	-.1449E+01	.6625E+00	.8547E-07	.2774E+01	-.2716E+02	.1473E+01
34	.4990E+02	.1809E+02	.2368E+01	.1143E-06	-.1226E+01	.1857E+01	.3912E-06	.5187E+01	-.4858E+02	.1536E+01
35	.5497E+02	.1709E+02	.2271E+01	.1928E-06	-.1218E+01	.2271E+01	.6170E-06	.5089E+01	-.5463E+02	.1612E+01
36	.5872E+02	.1610E+02	.2182E+01	.2353E-06	-.1237E+01	.2608E+01	.7557E-06	.5199E+01	-.5842E+02	.1680E+01
37	.4190E+02	.1510E+02	.2094E+01	.3176E-06	-.8528E+00	.1979E+01	.3623E-06	.5749E+01	-.6248E+02	.1724E+01
38	.4721E+02	.1312E+02	.1908E+01	.1900E-06	-.7346E+00	.2590E+01	.1926E-06	.8422E+01	-.9395E+02	.1739E+01
39	.4431E+02	.1112E+02	.1737E+01	.1665E-07	-.7938E+00	.2638E+01	-.1485E-06	.6478E+01	-.7734E+02	.1710E+01
40	.3797E+02	.9626E+01	.1616E+01	-.1527E-06	-.8612E+00	.2337E+01	-.2574E-07	.4704E+01	-.5685E+02	.1637E+01
41	.3314E+02	.8129E+01	.1490E+01	-.1500E-06	-.8478E+00	.2120E+01	-.4192E-07	.4204E+01	-.4960E+02	.1537E+01
42	.3613E+02	.6633E+01	.1362E+01	.1247E-07	-.9995E+00	.2405E+01	.1904E-06	.3733E+01	-.4513E+02	.1427E+01
43	.3737E+02	.5631E+01	.1283E+01	.1060E-06	-.1198E+01	.2468E+01	.4565E-06	.3021E+01	-.3741E+02	.1325E+01
44	.3442E+02	.4631E+01	.1200E+01	.8896E-07	-.1191E+01	.2278E+01	.3079E-06	.2888E+01	-.3441E+02	.1237E+01
45	.4321E+02	.3632E+01	.1115E+01	.4820E-07	-.1559E+01	.2887E+01	.1622E-06	.2581E+01	-.3251E+02	.1168E+01
46	.5462E+02	.3126E+01	.1081E+01	.2312E-07	-.2230E+01	.3511E+01	.6350E-07	.1951E+01	-.2756E+02	.1123E+01
47	.5031E+02	.2622E+01	.1044E+01	.1466E-06	-.2223E+01	.3132E+01	.5859E-07	.1914E+01	-.2533E+02	.1102E+01
48	.6601E+02	.2120E+01	.1005E+01	.7879E-07	-.3078E+01	.4018E+01	.5057E-07	.1527E+01	-.2344E+02	.1103E+01
49	.9711E+02	.1912E+01	.9976E+00	.2706E-07	-.5038E+01	.5558E+01	.2513E-07	.7608E+00	-.2012E+02	.1116E+01
50	.8910E+02	.1705E+01	.9891E+00	.8366E-08	-.5044E+01	.4803E+01	.7834E-08	.7930E+00	-.1842E+02	.1131E+01
51	.8267E+02	.1499E+01	.9798E+00	.4238E-08	-.5043E+01	.4201E+01	-.1664E-08	.7975E+00	-.1706E+02	.1138E+01
52	.7726E+02	.1293E+01	.9698E+00	.8300E-08	-.5037E+01	.3703E+01	-.3019E-08	.7809E+00	-.1591E+02	.1138E+01
53	.1026E+03	.1087E+01	.9595E+00	.4545E-08	-.7117E+01	.4642E+01	-.7565E-09	-.5095E+01	-.1110E+02	.1133E+01
54	.1939E+03	.1076E+01	.1069E+01	.1785E-08	-.1448E+02	.7775E+01	.3137E-09	-.2081E+02	-.2221E+01	.1125E+01
55	.1752E+03	.1064E+01	.1174E+01	.1384E-07	-.1410E+02	.5941E+01	-.1259E-08	-.2406E+02	-.2286E+01	.1110E+01
56	.1257E+03	.1050E+01	.1344E+01	.2231E-07	-.1082E+02	.3398E+01	-.4441E-08	-.3137E+02	-.1767E+01	.1077E+01
57	.8384E+02	.1036E+01	.1673E+01	-.4305E-07	-.7673E+01	.1648E+01	.1494E-07	-.4559E+02	-.1135E+01	.1018E+01
58	.5876E+02	.1023E+01	.2431E+01	-.3331E-09	-.5654E+01	.7751E+00	.3606E-09	-.7372E+02	-.2873E+00	.9937E+00
59	.3685E+02	.1026E+01	.4182E+01	.6223E-10	-.3553E+01	.5482E+00	-.1600E-08	-.6904E+02	.2802E+00	.9974E+00
60	.2404E+02	.1038E+01	.6178E+01	.8869E-11	-.2266E+01	.5195E+00	.3524E-09	-.4795E+02	.3810E+00	.1000E+01
61	.1624E+02	.1058E+01	.8170E+01	-.2100E-10	-.1459E+01	.5192E+00	.7718E-10	-.3230E+02	.3643E+00	.1000E+01
62	.1134E+02	.1083E+01	.1016E+02	-.1007E-09	-.9369E+00	.5169E+00	-.2715E-09	-.2249E+02	.3046E+00	.1000E+01
63	.8478E+01	.1111E+01	.1214E+02	-.2085E-09	-.6133E+00	.5138E+00	-.5944E-09	-.1677E+02	.2274E+00	.1000E+01
64	.6864E+01	.1137E+01	.1411E+02	-.2974E-09	-.4119E+00	.5104E+00	-.8766E-09	-.1357E+02	.1519E+00	.1000E+01
65	.5962E+01	.1156E+01	.1609E+02	-.3898E-09	-.2903E+00	.5059E+00	-.1180E-08	-.1183E+02	.8612E-01	.1000E+01
66	.4958E+01	.1166E+01	.1808E+02	-.6566E-09	-.2200E+00	.4515E+00	-.2112E-08	-.1102E+02	.7275E-01	.1000E+01
67	.3992E+01	.1185E+01	.2054E+02	-.1146E-08	-.7598E-01	.4077E+00	-.3966E-08	-.9801E+01	.5444E-01	.1000E+01
68	.4133E+01	.1193E+01	.2299E+02	-.8419E-09	.1524E-01	.4445E+00	-.3300E-08	-.9193E+01	.3037E+01	.1000E+01
69	.4629E+01	.2655E+01	.2498E+02	.9406E-09	.4054E-01	.5045E+00	.2534E-08	-.8315E+01	.1070E+02	.1000E+01
70	.4953E+01	.5814E+01	.2659E+02	.4065E-08	.3955E-01	.5372E+00	.1324E-07	-.7750E+01	.1997E+02	.1000E+01
71	.4523E+01	.1072E+02	.2811E+02	.8292E-08	.6727E-01	.4737E+00	.2791E-07	-.5578E+01	.2795E+02	.1000E+01
72	.3119E+01	.1817E+02	.2905E+02	.2181E-09	.8162E-01	.2961E+00	-.8595E-09	-.2676E+01	.2851E+02	.1000E+01
73	.8801E+00	.2900E+02	.2983E+02	0.	.7994E-01	0.	0.	-.6120E+00	.1101E+02	.1000E+01

SECOND INDEX= 29

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9907E+00	.8271E+00	.9415E+00	.1014E-03	.7913E+00	.1292E+01	.9767E+00	.3011E+01	-.9415E+00	-.1014E-03	-.1084E-02

2	.9907E+00	.8271E+00	.9415E+00	.1021E-03	.7913E+00	.1292E+01	.9767E+00	.3011E+01	-.9415E+00	-.1021E-03	-.1084E-02
3	.9808E+00	.8188E+00	.9405E+00	-.1719E-02	.7822E+00	.1297E+01	.9754E+00	.3008E+01	-.9405E+00	.1719E-02	-.2243E-02
4	.9510E+00	.7947E+00	.9380E+00	-.7381E-02	.7561E+00	.1312E+01	.9718E+00	.3001E+01	-.9380E+00	.7381E-02	-.5709E-02
5	.9039E+00	.7557E+00	.9337E+00	-.1686E-01	.7143E+00	.1338E+01	.9660E+00	.2989E+01	-.9339E+00	.7486E-03	-.1121E-01
6	.8560E+00	.7158E+00	.9291E+00	-.2732E-01	.6721E+00	.1367E+01	.9602E+00	.2975E+01	-.9298E+00	-.7038E-02	-.1680E-01
7	.8252E+00	.6893E+00	.9262E+00	-.3477E-01	.6448E+00	.1389E+01	.9571E+00	.2965E+01	-.9270E+00	-.1760E-02	-.2039E-01
8	.8151E+00	.6767E+00	.9248E+00	-.3766E-01	.6328E+00	.1408E+01	.9575E+00	.2952E+01	-.9255E+00	.1195E-02	-.2156E-01
9	.8178E+00	.6707E+00	.9237E+00	-.3752E-01	.6284E+00	.1431E+01	.9603E+00	.2930E+01	-.9244E+00	.1100E-02	-.2125E-01
10	.8229E+00	.6643E+00	.9222E+00	-.3664E-01	.6239E+00	.1459E+01	.9640E+00	.2902E+01	-.9229E+00	.2814E-03	-.2065E-01
11	.8265E+00	.6533E+00	.9196E+00	-.3601E-01	.6149E+00	.1500E+01	.9681E+00	.2864E+01	-.9200E+00	-.2404E-03	-.2024E-01
12	.8284E+00	.6377E+00	.9156E+00	-.3537E-01	.6015E+00	.1555E+01	.9728E+00	.2814E+01	-.9163E+00	-.6392E-03	-.2001E-01
13	.8304E+00	.6193E+00	.9107E+00	-.3381E-01	.5858E+00	.1624E+01	.9785E+00	.2755E+01	-.9111E+00	-.2081E-02	-.1978E-01
14	.8307E+00	.5985E+00	.9053E+00	-.3143E-01	.5677E+00	.1704E+01	.9850E+00	.2691E+01	-.9056E+00	-.4026E-02	-.1974E-01
15	.8189E+00	.5700E+00	.8989E+00	-.3068E-01	.5418E+00	.1799E+01	.9909E+00	.2626E+01	-.9004E+00	.3966E-02	-.2112E-01
16	.7809E+00	.5251E+00	.8893E+00	-.3527E-01	.4983E+00	.1924E+01	.9936E+00	.2554E+01	-.8904E+00	.8170E-02	-.2555E-01
17	.7184E+00	.4660E+00	.8751E+00	-.4676E-01	.4393E+00	.2093E+01	.9923E+00	.2470E+01	-.8764E+00	-.3294E-02	-.3284E-01
18	.6537E+00	.4099E+00	.8600E+00	-.6185E-01	.3835E+00	.2278E+01	.9902E+00	.2390E+01	-.8621E+00	-.7082E-02	-.4039E-01
19	.6097E+00	.3711E+00	.8483E+00	-.7388E-01	.3460E+00	.2442E+01	.9911E+00	.2325E+01	-.8512E+00	-.1516E-02	-.4552E-01
20	.5940E+00	.3520E+00	.8405E+00	-.7875E-01	.3283E+00	.2562E+01	.9951E+00	.2275E+01	-.8448E+00	.1067E-02	-.4735E-01
21	.6045E+00	.3507E+00	.8353E+00	-.7696E-01	.3275E+00	.2621E+01	.9993E+00	.2236E+01	-.8374E+00	-.3191E-02	-.4612E-01
22	.6421E+00	.3663E+00	.8313E+00	-.6900E-01	.3423E+00	.2620E+01	.1002E+01	.2205E+01	-.8337E+00	-.8481E-03	-.4174E-01
23	.7067E+00	.3979E+00	.8282E+00	-.5451E-01	.3718E+00	.2568E+01	.1004E+01	.2180E+01	-.8319E+00	.2378E-02	-.3420E-01
24	.7919E+00	.4455E+00	.8295E+00	-.3547E-01	.4165E+00	.2457E+01	.1005E+01	.2179E+01	-.8235E+00	-.7476E-02	-.2427E-01
25	.8843E+00	.5104E+00	.8416E+00	-.1645E-01	.4796E+00	.2268E+01	.1005E+01	.2238E+01	-.8007E+00	-.5060E-01	-.1349E-01
26	.9844E+00	.5936E+00	.8622E+00	.6383E-03	.5639E+00	.2043E+01	.1009E+01	.2344E+01	-.8295E+00	-.5524E-01	-.1824E-02
27	.1070E+01	.6753E+00	.8813E+00	.1422E-01	.6478E+00	.1854E+01	.1011E+01	.2451E+01	-.8720E+00	-.1880E-01	.8180E-02
28	.1116E+01	.7238E+00	.8903E+00	.2194E-01	.6964E+00	.1754E+01	.1010E+01	.2510E+01	-.8900E+00	-.1467E-02	.1351E-01
29	.1136E+01	.7415E+00	.8907E+00	.2572E-01	.7121E+00	.1726E+01	.1008E+01	.2520E+01	-.8892E+00	-.8633E-02	.1582E-01
30	.1169E+01	.7579E+00	.8877E+00	.3121E-01	.7269E+00	.1723E+01	.1007E+01	.2503E+01	-.8848E+00	-.1594E-01	.1971E-01
31	.1238E+01	.7912E+00	.8838E+00	.4155E-01	.7590E+00	.1718E+01	.1009E+01	.2476E+01	-.8848E+00	-.4604E-03	.2771E-01
32	.1331E+01	.8307E+00	.8754E+00	.5471E-01	.7953E+00	.1726E+01	.1011E+01	.2425E+01	-.8786E+00	.3514E-02	.3862E-01
33	.1423E+01	.8581E+00	.8606E+00	.6619E-01	.8161E+00	.1763E+01	.1010E+01	.2346E+01	-.8707E+00	.1540E-01	.4933E-01
34	.1486E+01	.8560E+00	.8369E+00	.7313E-01	.8033E+00	.1848E+01	.1004E+01	.2231E+01	-.8588E+00	.2107E-01	.5673E-01
35	.1507E+01	.8257E+00	.8067E+00	.7350E-01	.7597E+00	.1971E+01	.9951E+00	.2098E+01	-.8109E+00	.8766E-03	.5915E-01
36	.1506E+01	.7930E+00	.7789E+00	.7031E-01	.7154E+00	.2083E+01	.9846E+00	.1987E+01	-.7773E+00	-.5058E-02	.5896E-01
37	.1508E+01	.7747E+00	.7589E+00	.6742E-01	.6887E+00	.2156E+01	.9766E+00	.1911E+01	-.7652E+00	.3530E-02	.5929E-01
38	.1512E+01	.7707E+00	.7494E+00	.6604E-01	.6790E+00	.2177E+01	.9705E+00	.1880E+01	-.7555E+00	.3254E-02	.5968E-01
39	.1511E+01	.7839E+00	.7545E+00	.6516E-01	.6893E+00	.2125E+01	.9661E+00	.1909E+01	-.7532E+00	-.4188E-02	.5963E-01
40	.1517E+01	.8218E+00	.7754E+00	.6624E-01	.7279E+00	.1997E+01	.9653E+00	.2005E+01	-.7760E+00	-.2347E-02	.6032E-01
41	.1533E+01	.8828E+00	.8056E+00	.6988E-01	.7930E+00	.1826E+01	.9678E+00	.2148E+01	-.8064E+00	-.2354E-02	.6218E-01
42	.1549E+01	.9606E+00	.8394E+00	.7542E-01	.8780E+00	.1639E+01	.9718E+00	.2323E+01	-.8291E+00	-.1430E-01	.6406E-01
43	.1558E+01	.1048E+01	.8726E+00	.7977E-01	.9746E+00	.1460E+01	.9763E+00	.2515E+01	-.8583E+00	-.1919E-01	.6512E-01
44	.1557E+01	.1137E+01	.9032E+00	.8242E-01	.1076E+01	.1300E+01	.9809E+00	.2713E+01	-.8944E+00	-.1361E-01	.6493E-01
45	.1544E+01	.1220E+01	.9294E+00	.8386E-01	.1171E+01	.1169E+01	.9853E+00	.2903E+01	-.9172E+00	-.1747E-01	.6349E-01
46	.1532E+01	.1290E+01	.9497E+00	.8467E-01	.1254E+01	.1073E+01	.9899E+00	.3062E+01	-.9324E+00	-.2387E-01	.6201E-01
47	.1530E+01	.1344E+01	.9636E+00	.8612E-01	.1319E+01	.1012E+01	.9947E+00	.3173E+01	-.9526E+00	-.1723E-01	.6180E-01
48	.1545E+01	.1383E+01	.9711E+00	.8889E-01	.1367E+01	.9811E+00	.9990E+00	.3229E+01	-.9489E+00	-.3120E-01	.6359E-01
49	.1571E+01	.1407E+01	.9728E+00	.9212E-01	.1395E+01	.9744E+00	.1002E+01	.3236E+01	-.9314E+00	-.5809E-01	.6660E-01
50	.1591E+01	.1412E+01	.9709E+00	.9407E-01	.1400E+01	.9813E+00	.1002E+01	.3216E+01	-.9371E+00	-.5160E-01	.6895E-01
51	.1593E+01	.1403E+01	.9680E+00	.9343E-01	.1387E+01	.9919E+00	.1001E+01	.3194E+01	-.9416E+00	-.4433E-01	.6917E-01
52	.1574E+01	.1383E+01	.9666E+00	.9007E-01	.1365E+01	.9991E+00	.9990E+00	.3186E+01	-.9476E+00	-.3563E-01	.6690E-01
53	.1545E+01	.1364E+01	.9673E+00	.8582E-01	.1345E+01	.1001E+01	.9981E+00	.3193E+01	-.7753E+00	-.4735E+00	.6355E-01
54	.1521E+01	.1350E+01	.9698E+00	.8284E-01	.1334E+01	.9988E+00	.9993E+00	.3210E+01	-.1545E+01	-.1840E+01	.6075E-01
55	.1476E+01	.1318E+01	.9735E+00	.7834E-01	.1307E+01	.1002E+01	.1002E+01	.3231E+01	-.1978E+01	-.2224E+01	.5548E-01
56	.1319E+01	.1209E+01	.9817E+00	.5638E-01	.1203E+01	.1011E+01	.1003E+01	.3295E+01	-.2809E+01	-.2997E+01	.3724E-01
57	.1050E+01	.1031E+01	.9939E+00	.7957E-02	.1026E+01	.1006E+01	.9967E+00	.3448E+01	-.4430E+01	-.4533E+01	.5822E-02
58	.9849E+00	.9905E+00	.1001E+01	-.2966E-02	.9914E+00	.9982E+00	.1000E+01	.3515E+01	-.7554E+01	-.7615E+01	-.1764E-02
59	.9964E+00	.9977E+00	.1001E+01	-.4832E-03	.9982E+00	.9997E+00	.1000E+01	.3504E+01	-.6974E+01	-.7047E+01	- 4159E-03
60	.1000E+01	.1000E+01	.9999E+00	.7514E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.4670E+01	-.4781E+01	.5098E-04
61	.1000E+01	.1000E+01	.1000E+01	.1387E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.2971E+01	-.3141E+01	.2470E-04
62	.9999E+00	.1000E+01	.1000E+01	-.8166E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1893E+01	-.2148E+01	-.6466E-05
63	.9999E+00	.1000E+01	.1000E+01	.1637E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1232E+01	-.1593E+01	-.6628E-05
64	.1000E+01	.1000E+01	.1000E+01	.5512E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.8260E+00	-.1301E+01	-.1271E-05
65	.1000E+01	.1000E+01	.1000E+01	.5500E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5845E+00	-.1160E+01	.1250E-05
66	.1000E+01	.1000E+01	.1000E+01	.3297E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.4981E+00	-.1119E+01	.1534E-05

67	.1000E+01	.1000E+01	.1000E+01	.4415E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1902E+00	-.1019E+01	.1509E-05
68	.1000E+01	.1000E+01	.1000E+01	.5229E-07	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.3525E-01	-.9896E+00	.3370E-05
69	.1000E+01	.1000E+01	.1000E+01	.9554E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1177E+00	-.9100E+00	.1003E-04
70	.1000E+01	.1000E+01	.1000E+01	.3562E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1673E+00	-.8462E+00	.2388E-04
71	.1000E+01	.1000E+01	.1000E+01	.7411E-04	.1000E+01	.9999E+00	.1000E+01	.3500E+01	.4185E+00	-.5954E+00	.4258E-04
72	.1000E+01	.1001E+01	.1000E+01	.1049E-03	.1000E+01	.9998E+00	.1000E+01	.3500E+01	.7406E+00	-.2720E+00	.5668E-04
73	.1000E+01	.1001E+01	.1000E+01	.1049E-03	.1000E+01	.9998E+00	.1000E+01	.3500E+01	.1002E+01	-.6054E-01	.5670E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.6895E+01	.9000E+02	.7617E-01	0.	-.2500E+00	.6271E-11	0.	.1931E-10	-.2758E+02	.1198E+01
2	.6895E+01	.8600E+02	.7617E-01	-.4662E-06	-.2500E+00	.1953E-08	-.2366E-05	.6377E-11	-.2758E+02	.1198E+01
3	.6895E+01	.8200E+02	.7617E-01	-.1174E-06	-.2500E+00	.7610E-08	-.8356E-06	-.1990E-13	-.2758E+02	.1198E+01
4	.6895E+01	.7800E+02	.7617E-01	.2442E-06	-.2500E+00	.2990E-07	.7377E-06	.7655E-13	-.2758E+02	.1197E+01
5	.6895E+01	.7400E+02	.7617E-01	.4562E-06	-.2500E+00	.1147E-06	.1613E-05	-.4758E+00	-.2758E+02	.1196E+01
6	.7001E+01	.7000E+02	.2142E+00	.5098E-06	-.2500E+00	.4644E-06	.1849E-05	-.1035E+01	-.2800E+02	.1196E+01
7	.7129E+01	.6600E+02	.3720E+00	.4059E-06	-.2500E+00	.1983E-05	.1510E-05	-.1125E+01	-.2851E+02	.1197E+01
8	.7264E+01	.6200E+02	.5297E+00	.9937E-07	-.2500E+00	.8899E-05	.3141E-06	-.1146E+01	-.2906E+02	.1205E+01
9	.7408E+01	.5800E+02	.6874E+00	-.3086E-06	-.2500E+00	.4210E-04	-.1322E-05	-.1168E+01	-.2963E+02	.1219E+01
10	.7563E+01	.5400E+02	.8451E+00	-.6826E-06	-.2500E+00	.2109E-03	-.2820E-05	-.1193E+01	-.3025E+02	.1239E+01
11	.7723E+01	.5000E+02	.1003E+01	-.1019E-05	-.2500E+00	.1127E-02	-.4102E-05	-.1217E+01	-.3088E+02	.1265E+01
12	.7907E+01	.4600E+02	.1160E+01	-.1247E-05	-.2501E+00	.6594E-02	-.4799E-05	-.1242E+01	-.3158E+02	.1299E+01
13	.9325E+01	.4201E+02	.1317E+01	-.1112E-05	-.2837E+00	.5433E-01	-.3989E-05	-.1285E+01	-.3262E+02	.1341E+01
14	.1100E+02	.3901E+02	.1436E+01	-.9095E-06	-.3326E+00	.2860E-01	-.3187E-05	-.1291E+01	-.3295E+02	.1388E+01
15	.1383E+02	.3602E+02	.1552E+01	-.6925E-06	-.3964E+00	.1186E+00	-.2515E-05	-.1033E+01	-.3458E+02	.1437E+01
16	.1679E+02	.3401E+02	.1585E+01	-.5289E-06	-.4968E+00	.3972E-01	-.2029E-05	-.1028E+01	-.3371E+02	.1487E+01
17	.1695E+02	.3200E+02	.1674E+01	-.4672E-06	-.4986E+00	.2584E-01	-.2266E-05	-.1939E+01	-.3390E+02	.1542E+01
18	.1718E+02	.3001E+02	.1814E+01	-.3865E-06	-.4981E+00	.4690E-01	-.1929E-05	-.2745E+01	-.3424E+02	.1595E+01
19	.1778E+02	.2802E+02	.1994E+01	-.3207E-06	-.4927E+00	.1420E+00	-.1412E-05	-.3127E+01	-.3519E+02	.1643E+01
20	.2963E+02	.2605E+02	.2166E+01	-.1758E-06	-.6128E+00	.6216E+00	-.7964E-06	-.4098E+01	-.4420E+02	.1687E+01
21	.3848E+02	.2504E+02	.2270E+01	-.1258E-06	-.9411E+00	.5954E+00	-.6713E-06	-.3684E+01	-.3856E+02	.1724E+01
22	.4267E+02	.2404E+02	.2357E+01	-.1109E-06	-.9411E+00	.8197E+00	-.5483E-06	-.3542E+01	-.4225E+02	.1753E+01
23	.5626E+02	.2305E+02	.2436E+01	-.7707E-07	-.9230E+00	.1343E+01	-.4104E-06	-.3571E+01	-.5576E+02	.1776E+01
24	.1075E+03	.2206E+02	.2484E+01	-.3210E-08	-.1197E+01	.2923E+01	.2204E-06	-.3753E+01	-.8066E+02	.1778E+01
25	.1488E+03	.2155E+02	.2506E+01	.4189E-07	-.2388E+01	.3614E+01	.1710E-06	-.3188E+01	-.5747E+02	.1733E+01
26	.1626E+03	.2129E+02	.2527E+01	.5819E-07	-.3672E+01	.2870E+01	.2225E-06	-.2204E+01	-.4256E+02	.1658E+01
27	.1579E+03	.2103E+02	.2533E+01	.5002E-07	-.3886E+01	.2232E+01	.1934E-06	-.9661E-01	-.4057E+02	.1585E+01
28	.1525E+03	.2078E+02	.2528E+01	.3099E-07	-.3944E+01	.1728E+01	.1191E-06	.9038E+00	-.3905E+02	.1542E+01
29	.1463E+03	.2052E+02	.2521E+01	.1570E-07	-.3917E+01	.1269E+01	.7047E-07	.7409E+00	-.3758E+02	.1532E+01
30	.1388E+03	.2026E+02	.2518E+01	.9730E-08	-.3825E+01	.7501E+00	.6569E-07	.6405E+00	-.3641E+02	.1542E+01
31	.9639E+02	.1999E+02	.2512E+01	.2291E-07	-.2704E+01	-.1116E+00	.1308E-06	.1654E+01	-.3557E+02	.1564E+01
32	.8011E+02	.1952E+02	.2484E+01	.5706E-07	-.2120E+01	.8014E+00	.2623E-06	.2564E+01	-.3876E+02	.1603E+01
33	.5472E+02	.1903E+02	.2448E+01	.8222E-07	-.1424E+01	.6484E+00	.3389E-06	.3711E+01	-.4012E+02	.1658E+01
34	.7485E+02	.1806E+02	.2348E+01	-.1164E-07	-.1203E+01	.1882E+01	-.5421E-06	.7273E+01	-.7357E+02	.1736E+01
35	.8335E+02	.1706E+02	.2254E+01	-.8721E-07	-.1214E+01	.2294E+01	-.9492E-06	.7602E+01	-.8305E+02	.1825E+01
36	.8949E+02	.1606E+02	.2166E+01	-.1110E-06	-.1234E+01	.2628E+01	-.9608E-06	.7854E+01	-.8923E+02	.1898E+01
37	.6407E+02	.1507E+02	.2078E+01	-.1113E-06	-.8484E+00	.1987E+01	-.1435E-05	.8647E+01	-.9578E+02	.1947E+01
38	.7325E+02	.1307E+02	.1896E+01	.7298E-07	-.7325E+00	.2599E+01	-.8453E-06	.1299E+02	-.1461E+03	.1962E+01
39	.6964E+02	.1108E+02	.1724E+01	.2389E-06	-.7978E+00	.2648E+01	.1702E-06	.1037E+02	-.1217E+03	.1928E+01
40	.5985E+02	.9578E+01	.1598E+01	.3114E-06	-.8648E+00	.2335E+01	.1651E-05	.7590E+01	-.8970E+02	.1846E+01
41	.5244E+02	.8080E+01	.1470E+01	.2411E-06	-.8488E+00	.2112E+01	.1641E-05	.6748E+01	-.7858E+02	.1787E+01
42	.5774E+02	.6582E+01	.1341E+01	.6293E-07	-.1004E+01	.2405E+01	.3571E-06	.6107E+01	-.7216E+02	.1613E+01
43	.5991E+02	.5580E+01	.1258E+01	-.4392E-07	-.1205E+01	.2470E+01	-.1977E-06	.5002E+01	-.5996E+02	.1487E+01
44	.5515E+02	.4580E+01	.1174E+01	-.1441E-06	-.1194E+01	.2273E+01	-.5301E-06	.4709E+01	-.5515E+02	.1369E+01
45	.6982E+02	.3580E+01	.1088E+01	-.1004E-06	-.1570E+01	.2898E+01	-.4135E-06	.4335E+01	-.5246E+02	.1266E+01
46	.8882E+02	.3077E+01	.1049E+01	-.6269E-07	-.2263E+01	.3546E+01	-.2090E-06	.3451E+01	-.4466E+02	.1188E+01
47	.8143E+02	.2575E+01	.1010E+01	-.2299E-06	-.2244E+01	.3147E+01	-.2540E-06	.3278E+01	-.4089E+02	.1139E+01
48	.1079E+03	.2073E+01	.9689E+00	-.1003E-06	-.3132E+01	.4073E+01	-.1746E-06	.2812E+01	-.3809E+02	.1117E+01
49	.1615E+03	.1868E+01	.9577E+00	-.1272E-07	-.5218E+01	.5728E+01	-.4790E-07	.1882E+01	-.3302E+02	.1117E+01
50	.1476E+03	.1664E+01	.9456E+00	.9752E-08	-.5195E+01	.4918E+01	-.1380E-07	.1823E+01	-.3013E+02	.1127E+01
51	.1366E+03	.1460E+01	.9330E+00	.1221E-08	-.5173E+01	.4282E+01	-.2758E-08	.1758E+01	-.2787E+02	.1136E+01
52	.1277E+03	.1256E+01	.9199E+00	-.1367E-07	-.5151E+01	.3762E+01	-.6197E-09	.1686E+01	-.2601E+02	.1138E+01
53	.1732E+03	.1052E+01	.9066E+00	-.9594E-08	-.7411E+01	.4800E+01	.1018E-07	-.7989E+01	-.1820E+02	.1133E+01
54	.3513E+03	.1046E+01	.1012E+01	-.6625E-08	-.1614E+02	.8591E+01	.3389E-08	-.3624E+02	-.2480E+01	.1126E+01
55	.3193E+03	.1038E+01	.1113E+01	-.3766E-07	-.1576E+02	.6565E+01	-.8397E-07	-.4251E+02	-.2554E+01	.1119E+01
56	.2253E+03	.1030E+01	.1278E+01	-.6155E-07	-.1186E+02	.3660E+01	-.2409E-06	-.5530E+02	-.1929E+01	.1091E+01

57	.1481E+03	.1021E+01	.1604E+01	.1605E-06	-.8267E+01	.1726E+01	.5843E-06	-.7999E+02	-.1216E+01	.1018E+01	
58	.1028E+03	.1014E+01	.2358E+01	.5109E-09	-.6020E+01	.7839E+00	.1106E-08	-.1288E+03	-.3087E+00	.9944E+00	
59	.6327E+02	.1015E+01	.4109E+01	-.1784E-09	-.3719E+01	.5425E+00	-.2254E-08	-.1186E+03	.2838E+00	.9988E+00	
60	.4064E+02	.1022E+01	.6107E+01	.1662E-11	-.2339E+01	.5119E+00	.3046E-09	-.8115E+02	.3832E+00	.1000E+01	
61	.2713E+02	.1034E+01	.8102E+01	.1115E-10	-.1490E+01	.5116E+00	-.2177E-10	-.5409E+02	.3630E+00	.1000E+01	
62	.1881E+02	.1049E+01	.1009E+02	.1541E-10	-.9510E+00	.5102E+00	-.3099E-10	-.3743E+02	.3012E+00	.1000E+01	
63	.1401E+02	.1066E+01	.1208E+02	.6561E-11	-.6202E+00	.5083E+00	.3432E-10	-.2784E+02	.2232E+00	.1000E+01	
64	.1135E+02	.1081E+01	.1407E+02	-.7315E-11	-.4159E+00	.5062E+00	.1142E-10	-.2255E+02	.1476E+00	.1000E+01	
65	.9904E+01	.1092E+01	.1605E+02	-.1551E-10	-.2936E+00	.5035E+00	.1294E-10	-.1972E+02	.8194E-01	.1000E+01	
66	.8254E+01	.1098E+01	.1805E+02	-.7829E-10	-.2230E+00	.4486E+00	-.2105E-09	-.1843E+02	.6869E-01	.1000E+01	
67	.6648E+01	.1109E+01	.2052E+02	-.3332E-09	-.7691E-01	.4045E+00	-.5810E-09	-.1644E+02	.5069E-01	.1000E+01	
68	.6938E+01	.1113E+01	.2300E+02	-.4942E-09	.1499E-01	.4425E+00	-.6283E-09	-.1551E+02	.5082E+01	.1000E+01	
69	.7823E+01	.2574E+01	.2499E+02	.8428E-10	.4020E-01	.5045E+00	.1028E-08	-.1406E+02	.1807E+02	.1000E+01	
70	.8385E+01	.5733E+01	.2659E+02	.1787E-08	.3865E-01	.5387E+00	.6285E-08	-.1314E+02	.3382E+02	.1000E+01	
71	.7635E+01	.1064E+02	.2812E+02	.4692E-08	.6631E-01	.4756E+00	.1523E-07	-.9468E+01	.4722E+02	.1000E+01	
72	.5194E+01	.1810E+02	.2907E+02	-.1101E-08	.8030E-01	.2965E+00	-.5689E-08	-.4605E+01	.4767E+02	.1000E+01	
73	.1439E+01	.2900E+02	.2990E+02	0.	.7928E-01	0.	0.	-.1101E+01	.1815E+02	.1000E+01	

SECOND INDEX= 30

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9924E+00	.7280E+00	.8975E+00	.5921E-03	.6781E+00	.1548E+01	.9672E+00	.2691E+01	-.8975E+00	-.5921E-03	-.8881E-03
2	.9924E+00	.7280E+00	.8975E+00	.5895E-03	.6781E+00	.1548E+01	.9672E+00	.2691E+01	-.8975E+00	-.5896E-03	-.8876E-03
3	.9862E+00	.7232E+00	.8968E+00	-.2352E-03	.6729E+00	.1552E+01	.9664E+00	.2688E+01	-.8968E+00	.2352E-03	-.1614E-02
4	.9580E+00	.7028E+00	.8941E+00	-.5092E-02	.6513E+00	.1570E+01	.9629E+00	.2681E+01	-.8941E+00	.5092E-02	-.4901E-02
5	.9068E+00	.6644E+00	.8883E+00	-.1491E-01	.6107E+00	.1607E+01	.9561E+00	.2662E+01	-.8884E+00	-.4582E-03	-.1087E-01
6	.8545E+00	.6249E+00	.8818E+00	-.2597E-01	.5694E+00	.1650E+01	.9491E+00	.2641E+01	-.8824E+00	-.6727E-02	-.1697E-01
7	.8243E+00	.6012E+00	.8783E+00	-.3309E-01	.5457E+00	.1680E+01	.9459E+00	.2627E+01	-.8789E+00	-.1655E-02	-.2049E-01
8	.8168E+00	.5914E+00	.8766E+00	-.3541E-01	.5368E+00	.1704E+01	.9470E+00	.2613E+01	-.8773E+00	.7391E-03	-.2136E-01
9	.8210E+00	.5860E+00	.8747E+00	-.3529E-01	.5330E+00	.1735E+01	.9503E+00	.2589E+01	-.8754E+00	.6939E-03	-.2088E-01
10	.8247E+00	.5794E+00	.8725E+00	-.3456E-01	.5282E+00	.1771E+01	.9540E+00	.2562E+01	-.8732E+00	.5639E-04	-.2045E-01
11	.8267E+00	.5687E+00	.8686E+00	-.3463E-01	.5194E+00	.1822E+01	.9579E+00	.2524E+01	-.8693E+00	.2832E-03	-.2021E-01
12	.8263E+00	.5543E+00	.8633E+00	-.3519E-01	.5068E+00	.1888E+01	.9622E+00	.2477E+01	-.8640E+00	.1103E-02	-.2026E-01
13	.8257E+00	.5380E+00	.8572E+00	-.3437E-01	.4930E+00	.1967E+01	.9675E+00	.2424E+01	-.8579E+00	.4961E-03	-.2032E-01
14	.8274E+00	.5207E+00	.8498E+00	-.3160E-01	.4783E+00	.2063E+01	.9741E+00	.2361E+01	-.8503E+00	-.1864E-02	-.2013E-01
15	.8210E+00	.4978E+00	.8406E+00	-.2936E-01	.4580E+00	.2180E+01	.9804E+00	.2292E+01	-.8422E+00	.4328E-02	-.2088E-01
16	.7847E+00	.4585E+00	.8266E+00	-.3285E-01	.4201E+00	.2338E+01	.9821E+00	.2213E+01	-.8276E+00	.7754E-02	-.2510E-01
17	.7172E+00	.4037E+00	.8058E+00	-.4466E-01	.3654E+00	.2554E+01	.9774E+00	.2119E+01	-.8070E+00	-.1516E-02	-.3299E-01
18	.6483E+00	.3526E+00	.7836E+00	-.5981E-01	.3150E+00	.2790E+01	.9715E+00	.2029E+01	-.7858E+00	-.3188E-02	-.4101E-01
19	.6058E+00	.3191E+00	.7662E+00	-.7009E-01	.2830E+00	.2998E+01	.9706E+00	.1955E+01	-.7696E+00	.9716E-03	-.4597E-01
20	.5935E+00	.3033E+00	.7541E+00	-.7291E-01	.2688E+00	.3153E+01	.9747E+00	.1896E+01	-.7597E+00	.3249E-02	-.4741E-01
21	.6045E+00	.3021E+00	.7462E+00	-.7098E-01	.2679E+00	.3230E+01	.9791E+00	.1855E+01	-.7496E+00	.6016E-04	-.4612E-01
22	.6399E+00	.3158E+00	.7437E+00	-.6521E-01	.2807E+00	.3213E+01	.9830E+00	.1836E+01	-.7470E+00	.7615E-03	-.4200E-01
23	.7040E+00	.3462E+00	.7467E+00	-.5292E-01	.3092E+00	.3108E+01	.9874E+00	.1837E+01	-.7511E+00	.3151E-02	-.3452E-01
24	.7923E+00	.3925E+00	.7588E+00	-.3472E-01	.3529E+00	.2934E+01	.9917E+00	.1864E+01	-.7654E+00	-.1350E-02	-.2422E-01
25	.8855E+00	.4515E+00	.7745E+00	-.1611E-01	.4097E+00	.2696E+01	.9947E+00	.1936E+01	-.7501E+00	-.3016E-01	-.1335E-01
26	.9829E+00	.5255E+00	.8025E+00	-.9493E-03	.4839E+00	.2419E+01	.9995E+00	.2054E+01	-.7807E+00	-.3704E-01	-.1998E-02
27	.1073E+01	.6014E+00	.8281E+00	.1315E-01	.5617E+00	.2187E+01	.1004E+01	.2170E+01	-.8220E+00	-.1256E-01	.8547E-02
28	.1123E+01	.6465E+00	.8396E+00	.2140E-01	.6065E+00	.2067E+01	.1004E+01	.2231E+01	-.8403E+00	.1134E-02	.1429E-01
29	.1135E+01	.6585E+00	.8397E+00	.2334E-01	.6159E+00	.2037E+01	.1001E+01	.2240E+01	-.8385E+00	-.4643E-02	.1570E-01
30	.1159E+01	.6689E+00	.8362E+00	.2649E-01	.6242E+00	.2036E+01	.9995E+00	.2224E+01	-.8345E+00	-.1012E-01	.1859E-01
31	.1229E+01	.6983E+00	.8318E+00	.3633E-01	.6522E+00	.2032E+01	.1002E+01	.2197E+01	-.8325E+00	.1062E-02	.2670E-01
32	.1328E+01	.7342E+00	.8210E+00	.4992E-01	.6845E+00	.2047E+01	.1005E+01	.2140E+01	-.8236E+00	.2624E-02	.3829E-01
33	.1425E+01	.7577E+00	.8011E+00	.6115E-01	.7004E+00	.2102E+01	.1004E+01	.2050E+01	-.8077E+00	.8849E-02	.4958E-01
34	.1491E+01	.7531E+00	.7689E+00	.6668E-01	.6839E+00	.2218E+01	.9969E+00	.1920E+01	-.7820E+00	.1154E-01	.5729E-01
35	.1509E+01	.7200E+00	.7324E+00	.6577E-01	.6459E+00	.2353E+01	.9846E+00	.1787E+01	-.7360E+00	.1238E-02	.5936E-01
36	.1506E+01	.7033E+00	.7000E+00	.6201E-01	.6090E+00	.2466E+01	.9715E+00	.1681E+01	-.7004E+00	-.2503E-02	.5905E-01
37	.1510E+01	.6925E+00	.6792E+00	.5914E-01	.5901E+00	.2526E+01	.9622E+00	.1616E+01	-.6861E+00	.4499E-02	.5948E-01
38	.1515E+01	.6918E+00	.6696E+00	.5873E-01	.5840E+00	.2538E+01	.9556E+00	.1590E+01	-.6748E+00	.2623E-02	.6007E-01
39	.1516E+01	.7053E+00	.6772E+00	.5867E-01	.5945E+00	.2471E+01	.9511E+00	.1623E+01	-.6781E+00	-.1643E-02	.6017E-01
40	.1522E+01	.7367E+00	.7007E+00	.6002E-01	.6257E+00	.2335E+01	.9501E+00	.1712E+01	-.7036E+00	.3065E-03	.6089E-01
41	.1533E+01	.7831E+00	.7331E+00	.6306E-01	.6744E+00	.2159E+01	.9521E+00	.1840E+01	-.7371E+00	.1347E-02	.6220E-01
42	.1553E+01	.8394E+00	.7656E+00	.6839E-01	.7347E+00	.1985E+01	.9560E+00	.1978E+01	-.7603E+00	-.8817E-02	.6454E-01
43	.1561E+01	.9107E+00	.8048E+00	.7284E-01	.8129E+00	.1780E+01	.9607E+00	.2160E+01	-.7969E+00	-.1206E-01	.6547E-01
44	.1558E+01	.9947E+00	.8456E+00	.7604E-01	.9069E+00	.1569E+01	.9658E+00	.2375E+01	-.8418E+00	-.7918E-02	.6504E-01
45	.1545E+01	.1083E+01	.8824E+00	.7891E-01	.1007E+01	.1383E+01	.9710E+00	.2595E+01	-.8762E+00	-.1053E-01	.6358E-01

46	.1530E+01	.1168E+01	.9130E+00	.8091E-01	.1105E+01	.1232E+01	.9765E+00	.2803E+01	-.9041E+00	-.1418E-01	.6180E-01
47	.1514E+01	.1237E+01	.9416E+00	.8345E-01	.1197E+01	.1124E+01	.9893E+00	.2991E+01	-.9364E+00	-.1030E-01	.5992E-01
48	.1529E+01	.1308E+01	.9561E+00	.8695E-01	.1279E+01	.1050E+01	.9933E+00	.3108E+01	-.9428E+00	-.2045E-01	.6169E-01
49	.1557E+01	.1365E+01	.9642E+00	.9098E-01	.1343E+01	.1007E+01	.9967E+00	.3174E+01	-.9376E+00	-.3910E-01	.6501E-01
50	.1581E+01	.1397E+01	.9673E+00	.9376E-01	.1379E+01	.9898E+00	.9986E+00	.3198E+01	-.9446E+00	-.3647E-01	.6777E-01
51	.1586E+01	.1402E+01	.9672E+00	.9428E-01	.1383E+01	.9883E+00	.9986E+00	.3198E+01	-.9491E+00	-.3255E-01	.6837E-01
52	.1569E+01	.1382E+01	.9666E+00	.9102E-01	.1363E+01	.9969E+00	.9984E+00	.3190E+01	-.9545E+00	-.2510E-01	.6632E-01
53	.1540E+01	.1354E+01	.9674E+00	.8511E-01	.1336E+01	.1007E+01	.9993E+00	.3187E+01	-.7779E+00	-.4649E+00	.6296E-01
54	.1511E+01	.1346E+01	.9705E+00	.8175E-01	.1330E+01	.9963E+00	.9989E+00	.3218E+01	-.1623E+01	-.1927E+01	.5957E-01
55	.1451E+01	.1334E+01	.9733E+00	.8149E-01	.1313E+01	.9686E+00	.9926E+00	.3279E+01	-.2088E+01	-.2346E+01	.5255E-01
56	.1307E+01	.1245E+01	.9812E+00	.6494E-01	.1227E+01	.9622E+00	.9912E+00	.3358E+01	-.2945E+01	-.3146E+01	.3585E-01
57	.1120E+01	.1028E+01	.9911E+00	.5967E-02	.1035E+01	.1077E+01	.1013E+01	.3324E+01	-.4619E+01	-.4721E+01	.1399E-01
58	.9888E+00	.9926E+00	.1001E+01	-.2143E-02	.9936E+00	.9991E+00	.1001E+01	.3511E+01	-.7853E+01	-.7913E+01	-.1301E-02
59	.9984E+00	.9990E+00	.1000E+01	-.1976E-03	.9992E+00	.9998E+00	.1000E+01	.3502E+01	-.7175E+01	-.7245E+01	-.1884E-03
60	.1000E+01	.1000E+01	.1000E+01	.3780E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.4766E+01	-.4872E+01	.2634E-04
61	.1000E+01	.1000E+01	.1000E+01	.7657E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.3014E+01	-.3180E+01	.4872E-05
62	.1000E+01	.1000E+01	.1000E+01	.1320E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1914E+01	-.2163E+01	-.5978E-06
63	.1000E+01	.1000E+01	.1000E+01	.1026E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1244E+01	-.1600E+01	.1212E-05
64	.1000E+01	.1000E+01	.1000E+01	.2545E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.8330E+00	-.1304E+01	.1734E-05
65	.1000E+01	.1000E+01	.1000E+01	-.1917E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5894E+00	-.1162E+01	.1106E-05
66	.1000E+01	.1000E+01	.1000E+01	-.3099E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5037E+00	-.1121E+01	.4100E-06
67	.1000E+01	.1000E+01	.1000E+01	-.8014E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1924E+00	-.1019E+01	.1618E-05
68	.1000E+01	.1000E+01	.1000E+01	-.2301E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.3498E-01	-.9897E+00	.4891E-05
69	.1000E+01	.1000E+01	.1000E+01	.8405E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1171E+00	-.9104E+00	.1193E-04
70	.1000E+01	.1000E+01	.1000E+01	.3138E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1650E+00	-.8483E+00	.2307E-04
71	.1000E+01	.1000E+01	.1000E+01	.6461E-04	.1000E+01	.9999E+00	.1000E+01	.3500E+01	.4151E+00	-.5987E+00	.3556E-04
72	.1000E+01	.1000E+01	.1000E+01	.9182E-04	.1000E+01	.9997E+00	.1000E+01	.3500E+01	.7355E+00	-.2775E+00	.4413E-04
73	.1000E+01	.1000E+01	.1000E+01	.9180E-04	.1000E+01	.9997E+00	.1000E+01	.3500E+01	.1002E+01	-.6361E-01	.4592E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.1068E+02	.9000E+02	.4770E-01	0.	-.2500E+00	-.2429E-11	0.	.2007E-10	-.4272E+02	.1363E+01
2	.1068E+02	.8600E+02	.4770E-01	-.8963E-06	-.2500E+00	.1970E-08	-.4168E-05	.6631E-11	-.4272E+02	.1363E+01
3	.1068E+02	.8200E+02	.4770E-01	-.4387E-06	-.2500E+00	.7618E-08	-.1930E-05	-.1897E-13	-.4272E+02	.1364E+01
4	.1068E+02	.7800E+02	.4770E-01	.5786E-07	-.2500E+00	.2994E-07	-.4229E-06	.7708E-13	-.4272E+02	.1363E+01
5	.1068E+02	.7400E+02	.4770E-01	.3506E-06	-.2500E+00	.1148E-06	.6135E-06	-.7391E+00	-.4272E+02	.1365E+01
6	.1082E+02	.7000E+02	.1861E+00	.4148E-06	-.2500E+00	.4644E-06	-.5530E-07	-.1605E+01	-.4328E+02	.1367E+01
7	.1099E+02	.6600E+02	.3443E+00	.3720E-06	-.2500E+00	.1983E-05	.8392E-06	-.1738E+01	-.4394E+02	.1371E+01
8	.1116E+02	.6200E+02	.5026E+00	.1856E-06	-.2500E+00	.8898E-05	.3731E-06	-.1766E+01	-.4465E+02	.1381E+01
9	.1135E+02	.5800E+02	.6608E+00	-.1411E-06	-.2500E+00	.4210E-04	-.7841E-06	-.1795E+01	-.4539E+02	.1401E+01
10	.1155E+02	.5400E+02	.8190E+00	-.4794E-06	-.2500E+00	.2109E-03	-.2609E-05	-.1827E+01	-.4619E+02	.1423E+01
11	.1175E+02	.5000E+02	.9771E+00	-.6488E-06	-.2500E+00	.1127E-02	-.2875E-05	-.1859E+01	-.4700E+02	.1454E+01
12	.1198E+02	.4600E+02	.1135E+01	-.5688E-06	-.2500E+00	.6598E-02	-.7722E-06	-.1891E+01	-.4789E+02	.1491E+01
13	.1409E+02	.4201E+02	.1293E+01	-.2807E-06	-.2836E+00	.5495E-01	.9568E-07	-.1949E+01	-.4931E+02	.1535E+01
14	.1656E+02	.3900E+02	.1412E+01	-.2100E-06	-.3324E+00	.2865E-01	.1660E-06	-.1955E+01	-.4965E+02	.1589E+01
15	.2081E+02	.3601E+02	.1529E+01	-.2775E-06	-.3964E+00	.1202E+00	-.9369E-06	-.1559E+01	-.5202E+02	.1649E+01
16	.2524E+02	.3400E+02	.1562E+01	-.2521E-06	-.4975E+00	.3978E-01	-.9246E-06	-.1537E+01	-.5061E+02	.1712E+01
17	.2542E+02	.3200E+02	.1651E+01	-.1432E-06	-.4986E+00	.2586E-01	-.4212E-06	-.2913E+01	-.5083E+02	.1777E+01
18	.2569E+02	.3000E+02	.1791E+01	-.6097E-08	-.4974E+00	.4691E-01	.2824E-06	-.4121E+01	-.5125E+02	.1839E+01
19	.2648E+02	.2801E+02	.1971E+01	.4369E-07	-.4905E+00	.1425E+00	.5004E-06	-.4746E+01	-.5260E+02	.1898E+01
20	.4468E+02	.2603E+02	.2149E+01	.8226E-08	-.6101E+00	.6317E+00	.2058E-06	-.6237E+01	-.6678E+02	.1956E+01
21	.5762E+02	.2502E+02	.2251E+01	-.7469E-08	-.9419E+00	.5969E+00	.6159E-07	-.5484E+01	-.5770E+02	.2001E+01
22	.6383E+02	.2403E+02	.2340E+01	.8713E-08	-.9347E+00	.8250E+00	.1384E-06	-.5508E+01	-.6342E+02	.2026E+01
23	.8444E+02	.2304E+02	.2423E+01	.2119E-07	-.9131E+00	.1358E+01	.1378E-06	-.5732E+01	-.8395E+02	.2033E+01
24	.1642E+03	.2204E+02	.2475E+01	.2238E-08	-.1194E+01	.2994E+01	.2862E-06	-.5749E+01	-.1232E+03	.2019E+01
25	.2291E+03	.2154E+02	.2493E+01	-.4157E-08	-.2453E+01	.3722E+01	.8137E-08	-.3825E+01	-.8762E+02	.1961E+01
26	.2466E+03	.2128E+02	.2509E+01	.1433E-07	-.3770E+01	.2868E+01	-.2226E-07	-.2478E+01	-.6352E+02	.1870E+01
27	.2370E+03	.2102E+02	.2513E+01	.4792E-07	-.3936E+01	.2210E+01	.1491E-06	.1614E+00	-.6030E+02	.1785E+01
28	.2285E+03	.2077E+02	.2507E+01	.6338E-07	-.3983E+01	.1707E+01	.2085E-06	.1551E+01	-.5804E+02	.1736E+01
29	.2194E+03	.2051E+02	.2500E+01	.6477E-07	-.3957E+01	.1248E+01	.2300E-06	.1260E+01	-.5585E+02	.1723E+01
30	.2094E+03	.2026E+02	.2496E+01	.6702E-07	-.3887E+01	.7184E+00	.2606E-06	.1071E+01	-.5407E+02	.1733E+01
31	.1424E+03	.2000E+02	.2490E+01	.9738E-07	-.2687E+01	-.1903E+00	.3773E-06	.2376E+01	-.5285E+02	.1760E+01
32	.1181E+03	.1952E+02	.2463E+01	.1015E-06	-.2095E+01	.8008E+00	.3752E-06	.3682E+01	-.5779E+02	.1809E+01
33	.8070E+02	.1902E+02	.2427E+01	.2379E-07	-.1408E+01	.6392E+00	.5276E-07	.5130E+01	-.5965E+02	.1881E+01
34	.1127E+03	.1804E+02	.2335E+01	-.1194E-06	-.1188E+01	.1899E+01	-.7368E-06	.1042E+02	-.1115E+03	.1980E+01
35	.1267E+03	.1704E+02	.2242E+01	-.1963E-06	-.1211E+01	.2310E+01	-.9258E-06	.1144E+02	-.1264E+03	.2073E+01

36	.1367E+03	.1604E+02	.2155E+01	-.2006E-06	-.1232E+01	.2641E+01	-.9406E-06	.1193E+02	-.1365E+03	.2142E+01
37	.9831E+02	.1504E+02	.2068E+01	-.3006E-06	-.8455E+00	.1993E+01	.4056E-06	.1312E+02	-.1472E+03	.2181E+01
38	.1140E+03	.1305E+02	.1888E+01	-.2220E-06	-.7311E+00	.2605E+01	.2283E-06	.2013E+02	-.2276E+03	.2190E+01
39	.1097E+03	.1105E+02	.1715E+01	-.1164E-06	-.8004E+00	.2655E+01	.1607E-06	.1653E+02	-.1919E+03	.2149E+01
40	.9469E+02	.9548E+01	.1587E+01	.3411E-07	-.8671E+00	.2334E+01	-.4805E-06	.1218E+02	-.1420E+03	.2066E+01
41	.8336E+02	.8049E+01	.1457E+01	.6858E-07	-.8494E+00	.2108E+01	-.6118E-06	.1082E+02	-.1250E+03	.1958E+01
42	.9256E+02	.6550E+01	.1327E+01	-.9238E-07	-.1006E+01	.2406E+01	-.5234E-06	.9927E+01	-.1157E+03	.1851E+01
43	.9632E+02	.5549E+01	.1243E+01	-.2075E-06	-.1210E+01	.2471E+01	-.8309E-06	.8198E+01	-.9638E+02	.1715E+01
44	.8869E+02	.4549E+01	.1157E+01	-.2468E-06	-.1196E+01	.2270E+01	-.7070E-06	.7652E+01	-.8871E+02	.1566E+01
45	.1130E+03	.3549E+01	.1070E+01	-.7272E-07	-.1578E+01	.2905E+01	-.1637E-06	.7179E+01	-.8483E+02	.1427E+01
46	.1443E+03	.3047E+01	.1030E+01	-.1784E-06	-.2283E+01	.3568E+01	.3036E-07	.5888E+01	-.7241E+02	.1310E+01
47	.1319E+03	.2545E+01	.9887E+00	.2216E-06	-.2257E+01	.3157E+01	.1276E-06	.5490E+01	-.6615E+02	.1224E+01
48	.1758E+03	.2044E+01	.9467E+00	-.7211E-07	-.3167E+01	.4107E+01	-.8691E-07	.4903E+01	-.6188E+02	.1169E+01
49	.2665E+03	.1841E+01	.9330E+00	-.3086E-07	-.5136E+01	.5840E+01	-.7168E-07	.3731E+01	-.5402E+02	.1141E+01
50	.2428E+03	.1639E+01	.9187E+00	-.1788E-07	-.5292E+01	.4992E+01	-.2553E-07	.3510E+01	-.4919E+02	.1132E+01
51	.2247E+03	.1436E+01	.9040E+00	.3559E-08	-.5256E+01	.4333E+01	.1285E-07	.3324E+01	-.4549E+02	.1131E+01
52	.2101E+03	.1234E+01	.8891E+00	.2110E-07	-.5224E+01	.3799E+01	.2206E-07	.3158E+01	-.4250E+02	.1135E+01
53	.2892E+03	.1031E+01	.8740E+00	.1349E-07	-.7603E+01	.4904E+01	.1210E-07	-.1274E+02	-.2982E+02	.1137E+01
54	.6166E+03	.1027E+01	.9772E+00	-.6987E-08	-.1736E+02	.9189E+01	-.1868E-07	-.6209E+02	-.2650E+01	.1122E+01
55	.5634E+03	.1023E+01	.1075E+01	-.7316E-08	-.1699E+02	.7024E+01	-.9680E-07	-.7361E+02	-.2728E+01	.1087E+01
56	.3929E+03	.1018E+01	.1239E+01	.3102E-07	-.1260E+02	.3847E+01	-.2448E-06	-.9552E+02	-.2025E+01	.1050E+01
57	.2560E+03	.1012E+01	.1562E+01	-.3149E-07	-.8675E+01	.1780E+01	.6569E-06	-.1377E+03	-.1259E+01	.1089E+01
58	.1765E+03	.1008E+01	.2314E+01	.9403E-07	-.6266E+01	.7900E+00	-.2662E-07	-.2209E+03	-.3196E+00	.9962E+00
59	.1073E+03	.1009E+01	.4065E+01	-.3437E-07	-.3826E+01	.5388E+00	-.1918E-08	-.2012E+03	.2828E+00	.9994E+00
60	.6825E+02	.1013E+01	.6063E+01	-.2919E-09	-.2386E+01	.5071E+00	.7258E-10	-.1364E+03	.3798E+00	.1000E+01
61	.4520E+02	.1020E+01	.8061E+01	.2388E-10	-.1510E+01	.5069E+00	-.4969E-10	-.9078E+02	.3578E+00	.1000E+01
62	.3122E+02	.1029E+01	.1006E+02	.2386E-11	-.9596E+00	.5060E+00	.1690E-10	-.6225E+02	.2949E+00	.1000E+01
63	.2323E+02	.1039E+01	.1205E+02	.7365E-11	-.6243E+00	.5049E+00	.1876E-10	-.4628E+02	.2173E+00	.1000E+01
64	.1884E+02	.1048E+01	.1404E+02	.1322E-10	-.4182E+00	.5037E+00	.3468E-10	-.3753E+02	.1424E+00	.1000E+01
65	.1651E+02	.1054E+01	.1603E+02	.2315E-10	-.2955E+00	.5021E+00	.7109E-10	-.3292E+02	.7738E-01	.1000E+01
66	.1380E+02	.1057E+01	.1803E+02	.2993E-10	-.2248E+00	.4469E+00	.7836E-10	-.3091E+02	.6438E-01	.1000E+01
67	.1113E+02	.1063E+01	.2051E+02	-.3781E-10	-.7745E-01	.4026E+00	.1678E-09	-.2766E+02	.4688E-01	.1000E+01
68	.1170E+02	.1065E+01	.2300E+02	-.1655E-09	.1484E-01	.4413E+00	.2916E-09	-.2622E+02	.8555E+01	.1000E+01
69	.1325E+02	.2526E+01	.2499E+02	-.2018E-10	.3999E-01	.5046E+00	.9644E-09	-.2384E+02	.3062E+02	.1000E+01
70	.1421E+02	.5688E+01	.2660E+02	.7752E-09	.3811E-01	.5396E+00	.3006E-08	-.2229E+02	.5734E+02	.1000E+01
71	.1200E+02	.1050E+02	.2811E+02	.2473E-08	.6572E-01	.4760E+00	.7733E-08	-.1605E+02	.7911E+02	.1000E+01
72	.8673E+01	.1806E+02	.2908E+02	-.1669E-08	.7951E-01	.2967E+00	-.7311E-08	-.7843E+01	.7902E+02	.9999E+00
73	.2366E+01	.2900E+02	.2994E+02	0.	.7889E-01	0.	0.	-.1911E+01	.3000E+02	.9999E+00

SECOND INDEX= 31

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9914E+00	.6217E+00	.8309E+00	-.8209E-03	.5562E+00	.1928E+01	.9525E+00	.2303E+01	-.8309E+00	.8209E-03	-.1004E-02
2	.9914E+00	.6217E+00	.8309E+00	-.8301E-03	.5562E+00	.1928E+01	.9525E+00	.2303E+01	-.8309E+00	.8301E-03	-.1007E-02
3	.9903E+00	.6199E+00	.8303E+00	-.2634E-03	.5544E+00	.1934E+01	.9526E+00	.2299E+01	-.8303E+00	.2634E-03	-.1130E-02
4	.9673E+00	.6043E+00	.8271E+00	-.3265E-02	.5384E+00	.1958E+01	.9498E+00	.2288E+01	-.8271E+00	.3265E-02	-.3813E-02
5	.9133E+00	.5688E+00	.8191E+00	-.1280E-01	.5017E+00	.2012E+01	.9419E+00	.2263E+01	-.8192E+00	-.1391E-02	-.1011E-01
6	.8573E+00	.5320E+00	.8100E+00	-.2395E-01	.4640E+00	.2074E+01	.9334E+00	.2234E+01	-.8106E+00	-.6130E-02	-.1665E-01
7	.8289E+00	.5131E+00	.8062E+00	-.3011E-01	.4457E+00	.2110E+01	.9305E+00	.2222E+01	-.8069E+00	-.1830E-02	-.1995E-01
8	.8218E+00	.5069E+00	.8063E+00	-.3219E-01	.4410E+00	.2128E+01	.9324E+00	.2218E+01	-.8069E+00	.2432E-03	-.2078E-01
9	.8224E+00	.5028E+00	.8055E+00	-.3344E-01	.4386E+00	.2154E+01	.9357E+00	.2206E+01	-.8061E+00	.1526E-02	-.2071E-01
10	.8250E+00	.4963E+00	.8020E+00	-.3310E-01	.4338E+00	.2200E+01	.9394E+00	.2179E+01	-.8026E+00	.1324E-02	-.2040E-01
11	.8252E+00	.4881E+00	.7980E+00	-.3372E-01	.4274E+00	.2253E+01	.9431E+00	.2150E+01	-.7986E+00	.2111E-02	-.2039E-01
12	.8227E+00	.4783E+00	.7941E+00	-.3494E-01	.4197E+00	.2310E+01	.9473E+00	.2121E+01	-.7948E+00	.3513E-02	-.2067E-01
13	.8226E+00	.4665E+00	.7878E+00	-.3410E-01	.4103E+00	.2392E+01	.9527E+00	.2078E+01	-.7890E+00	.2931E-02	-.2068E-01
14	.8251E+00	.4530E+00	.7791E+00	-.3122E-01	.3995E+00	.2500E+01	.9597E+00	.2022E+01	-.7797E+00	.4431E-03	-.2039E-01
15	.8216E+00	.4353E+00	.7680E+00	-.2820E-01	.3845E+00	.2632E+01	.9665E+00	.1958E+01	-.7699E+00	.5339E-02	-.2081E-01
16	.7856E+00	.4016E+00	.7500E+00	-.3062E-01	.3526E+00	.2817E+01	.9671E+00	.1878E+01	-.7510E+00	.7927E-02	-.2500E-01
17	.7116E+00	.3526E+00	.7241E+00	-.4171E-01	.3042E+00	.3063E+01	.9586E+00	.1787E+01	-.7253E+00	.1722E-03	-.3363E-01
18	.6394E+00	.3078E+00	.6965E+00	-.5464E-01	.2607E+00	.3328E+01	.9487E+00	.1697E+01	-.6987E+00	-.1467E-02	-.4205E-01
19	.5986E+00	.2793E+00	.6730E+00	-.6167E-01	.2339E+00	.3571E+01	.9457E+00	.1615E+01	-.6758E+00	.3285E-03	-.4680E-01
20	.5887E+00	.2661E+00	.6548E+00	-.6247E-01	.2220E+00	.3758E+01	.9487E+00	.1548E+01	-.6587E+00	.1323E-02	-.4796E-01
21	.6000E+00	.2644E+00	.6409E+00	-.6057E-01	.2203E+00	.3863E+01	.9520E+00	.1496E+01	-.6437E+00	-.1110E-03	-.4665E-01
22	.6341E+00	.2770E+00	.6399E+00	-.5654E-01	.2316E+00	.3826E+01	.9567E+00	.1486E+01	-.6422E+00	-.4318E-03	-.4267E-01
23	.6980E+00	.3065E+00	.6533E+00	-.4673E-01	.2594E+00	.3655E+01	.9647E+00	.1519E+01	-.6553E+00	.4604E-03	-.3522E-01
24	.7895E+00	.3505E+00	.6714E+00	-.3088E-01	.3008E+00	.3425E+01	.9736E+00	.1568E+01	-.6711E+00	-.1169E-02	-.2455E-01

25	.8898E+00	.4000E+00	.6859E+00	-.1491E-01	.3466E+00	.3209E+01	.9790E+00	.1610E+01	-.6729E+00	-.1609E-01	-.1285E-01
26	.9830E+00	.4638E+00	.7232E+00	-.2790E-02	.4098E+00	.2882E+01	.9857E+00	.1739E+01	-.7097E+00	-.2310E-01	-.1978E-02
27	.1079E+01	.5338E+00	.7578E+00	.1220E-01	.4810E+00	.2599E+01	.9940E+00	.1866E+01	-.7536E+00	-.8728E-02	.9242E-02
28	.1136E+01	.5764E+00	.7726E+00	.2150E-01	.5230E+00	.2456E+01	.9953E+00	.1927E+01	-.7733E+00	.1102E-02	.1583E-01
29	.1142E+01	.5851E+00	.7730E+00	.2202E-01	.5286E+00	.2418E+01	.9902E+00	.1937E+01	-.7722E+00	-.3250E-02	.1653E-01
30	.1159E+01	.5925E+00	.7696E+00	.2323E-01	.5336E+00	.2412E+01	.9881E+00	.1926E+01	-.7685E+00	-.6956E-02	.1857E-01
31	.1231E+01	.6194E+00	.7645E+00	.3270E-01	.5587E+00	.2408E+01	.9921E+00	.1900E+01	-.7652E+00	.8198E-03	.2696E-01
32	.1334E+01	.6509E+00	.7502E+00	.4576E-01	.5859E+00	.2434E+01	.9953E+00	.1838E+01	-.7520E+00	.8611E-03	.3896E-01
33	.1430E+01	.6705E+00	.7244E+00	.5515E-01	.5969E+00	.2503E+01	.9932E+00	.1741E+01	-.7287E+00	.4517E-02	.5020E-01
34	.1489E+01	.6670E+00	.6860E+00	.5750E-01	.5809E+00	.2626E+01	.9837E+00	.1612E+01	-.6966E+00	.9274E-02	.5707E-01
35	.1503E+01	.6491E+00	.6445E+00	.5606E-01	.5496E+00	.2752E+01	.9683E+00	.1488E+01	-.6513E+00	.4697E-02	.5863E-01
36	.1499E+01	.6296E+00	.6049E+00	.5203E-01	.5182E+00	.2865E+01	.9520E+00	.1377E+01	-.6086E+00	.1535E-02	.5824E-01
37	.1504E+01	.6225E+00	.5800E+00	.4969E-01	.5027E+00	.2919E+01	.9407E+00	.1311E+01	-.5869E+00	.5014E-02	.5872E-01
38	.1514E+01	.6192E+00	.5585E+00	.4836E-01	.4925E+00	.2963E+01	.9321E+00	.1255E+01	-.5651E+00	.4592E-02	.5999E-01
39	.1518E+01	.6293E+00	.5645E+00	.4860E-01	.4990E+00	.2903E+01	.9272E+00	.1277E+01	-.5682E+00	.1632E-02	.6040E-01
40	.1529E+01	.6546E+00	.5914E+00	.5109E-01	.5237E+00	.2767E+01	.9272E+00	.1359E+01	-.5938E+00	.2080E-03	.6167E-01
41	.1536E+01	.6912E+00	.6321E+00	.5539E-01	.5623E+00	.2577E+01	.9302E+00	.1490E+01	-.6331E+00	-.1460E-02	.6255E-01
42	.1558E+01	.7309E+00	.6649E+00	.5819E-01	.6039E+00	.2416E+01	.9343E+00	.1600E+01	-.6654E+00	-.2194E-02	.6510E-01
43	.1561E+01	.7860E+00	.7133E+00	.6206E-01	.6643E+00	.2186E+01	.9395E+00	.1778E+01	-.7142E+00	-.1850E-02	.6539E-01
44	.1550E+01	.8585E+00	.7681E+00	.6619E-01	.7449E+00	.1919E+01	.9454E+00	.2008E+01	-.7720E+00	.1216E-02	.6413E-01
45	.1542E+01	.9350E+00	.8128E+00	.7038E-01	.8300E+00	.1694E+01	.9507E+00	.2224E+01	-.8145E+00	-.1493E-02	.6322E-01
46	.1530E+01	.1016E+01	.8522E+00	.7447E-01	.9212E+00	.1496E+01	.9561E+00	.2440E+01	-.8497E+00	-.6495E-02	.6180E-01
47	.1496E+01	.1084E+01	.8966E+00	.7833E-01	.1018E+01	.1336E+01	.9753E+00	.2682E+01	-.8961E+00	-.4553E-02	.5784E-01
48	.1504E+01	.1171E+01	.9210E+00	.8300E-01	.1115E+01	.1207E+01	.9798E+00	.2855E+01	-.9140E+00	-.1274E-01	.5881E-01
49	.1534E+01	.1262E+01	.9406E+00	.8862E-01	.1218E+01	.1107E+01	.9861E+00	.2999E+01	-.9235E+00	-.2684E-01	.6224E-01
50	.1566E+01	.1337E+01	.9545E+00	.9232E-01	.1305E+01	.1043E+01	.9925E+00	.3101E+01	-.9392E+00	-.2648E-01	.6596E-01
51	.1584E+01	.1381E+01	.9620E+00	.9487E-01	.1357E+01	.1008E+01	.9960E+00	.3159E+01	-.9484E+00	-.2598E-01	.6813E-01
52	.1575E+01	.1383E+01	.9645E+00	.9354E-01	.1361E+01	.1000E+01	.9970E+00	.3178E+01	-.9549E+00	-.2155E-01	.6702E-01
53	.1543E+01	.1347E+01	.9656E+00	.8567E-01	.1328E+01	.1017E+01	.9994E+00	.3170E+01	-.7775E+00	-.4601E+00	.6331E-01
54	.1514E+01	.1343E+01	.9708E+00	.8115E-01	.1329E+01	.1002E+01	.1001E+01	.3212E+01	-.1678E+01	-.1988E+01	.6000E-01
55	.1463E+01	.1340E+01	.9725E+00	.8227E-01	.1319E+01	.9713E+00	.9929E+00	.3269E+01	-.2164E+01	-.2429E+01	.5404E-01
56	.1324E+01	.1274E+01	.9800E+00	.7116E-01	.1251E+01	.9437E+00	.9870E+00	.3373E+01	-.3033E+01	-.3244E+01	.3782E-01
57	.1126E+01	.1022E+01	.9911E+00	.4034E-02	.1032E+01	.1092E+01	.1017E+01	.3305E+01	-.4752E+01	-.4853E+01	.1470E-01
58	.9926E+00	.9949E+00	.1001E+01	-.1411E-02	.9957E+00	.9997E+00	.1001E+01	.3507E+01	-.8045E+01	-.8105E+01	-.8592E-03
59	.9993E+00	.9996E+00	.1000E+01	-.6980E-04	.9997E+00	.9998E+00	.1000E+01	.3501E+01	-.7302E+01	-.7371E+01	-.8316E-04
60	.1000E+01	.1000E+01	.1000E+01	.1415E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.4825E+01	-.4930E+01	.1286E-04
61	.1000E+01	.1000E+01	.1000E+01	-.1249E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.3041E+01	-.3203E+01	.2379E-05
62	.1000E+01	.1000E+01	.1000E+01	-.1911E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1926E+01	-.2173E+01	.4500E-06
63	.1000E+01	.1000E+01	.1000E+01	-.1048E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1251E+01	-.1603E+01	.7594E-07
64	.1000E+01	.1000E+01	.1000E+01	-.6697E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.8372E+00	-.1306E+01	-.2500E-06
65	.1000E+01	.1000E+01	.1000E+01	-.4284E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5924E+00	-.1163E+01	-.3846E-06
66	.1000E+01	.1000E+01	.1000E+01	-.2731E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5070E+00	-.1122E+01	-.5170E-06
67	.1000E+01	.1000E+01	.1000E+01	-.6756E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1937E+00	-.1019E+01	.1439E-06
68	.1000E+01	.1000E+01	.1000E+01	-.1177E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.3483E-01	-.9898E+00	.2561E-05
69	.1000E+01	.1000E+01	.1000E+01	.4956E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1168E+00	-.9107E+00	.8777E-05
70	.1000E+01	.1000E+01	.1000E+01	.2624E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1637E+00	-.8495E+00	.1948E-04
71	.1000E+01	.1000E+01	.1000E+01	.5587E-04	.1000E+01	.9999E+00	.1000E+01	.3500E+01	.4130E+00	-.6007E+00	.3162E-04
72	.1000E+01	.1000E+01	.1000E+01	.7747E-04	.1000E+01	.9997E+00	.1000E+01	.3500E+01	.7322E+00	-.2808E+00	.3982E-04
73	.1000E+01	.1000E+01	.1000E+01	.7748E-04	.1000E+01	.9998E+00	.1000E+01	.3500E+01	.1002E+01	-.6547E-01	.4154E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.1659E+02	.9000E+02	.2936E-01	0.	-.2500E+00	-.7544E-11	0.	.1989E-10	-.6636E+02	.1595E+01
2	.1659E+02	.8600E+02	.2936E-01	-.4108E-06	-.2500E+00	.1980E-08	-.6462E-06	.6568E-11	-.6636E+02	.1595E+01
3	.1659E+02	.8200E+02	.2936E-01	-.4021E-06	-.2500E+00	.7619E-08	-.7964E-06	-.2210E-13	-.6636E+02	.1597E+01
4	.1659E+02	.7800E+02	.2936E-01	-.4669E-06	-.2500E+00	.2995E-07	-.2627E-05	.7551E-13	-.6636E+02	.1601E+01
5	.1659E+02	.7400E+02	.2936E-01	-.4655E-06	-.2500E+00	.1148E-06	-.3120E-05	-.1150E+01	-.6636E+02	.1606E+01
6	.1676E+02	.7000E+02	.1680E+00	-.4496E-06	-.2500E+00	.4645E-06	-.3582E-05	-.2490E+01	-.6706E+02	.1611E+01
7	.1697E+02	.6600E+02	.3264E+00	-.3778E-06	-.2500E+00	.1983E-05	-.2811E-05	-.2690E+01	-.6790E+02	.1616E+01
8	.1720E+02	.6200E+02	.4849E+00	-.2196E-06	-.2500E+00	.8898E-05	-.1721E-05	-.2725E+01	-.6879E+02	.1621E+01
9	.1743E+02	.5800E+02	.6434E+00	-.5897E-07	-.2500E+00	.4209E-04	-.1452E-06	-.2762E+01	-.6973E+02	.1636E+01
10	.1768E+02	.5400E+02	.8018E+00	.8318E-07	-.2500E+00	.2109E-03	.6216E-06	-.2802E+01	-.7072E+02	.1662E+01
11	.1794E+02	.5000E+02	.9603E+00	.2823E-06	-.2500E+00	.1127E-02	.1881E-05	-.2842E+01	-.7174E+02	.1691E+01
12	.1822E+02	.4600E+02	.1119E+01	.4664E-06	-.2499E+00	.6600E-02	.3405E-05	-.2882E+01	-.7284E+02	.1720E+01
13	.2137E+02	.4201E+02	.1277E+01	.4380E-06	-.2836E+00	.5535E-01	.2076E-05	-.2961E+01	-.7477E+02	.1763E+01
14	.2502E+02	.3900E+02	.1396E+01	.3127E-06	-.3323E+00	.2868E-01	.1370E-05	-.2964E+01	-.7503E+02	.1822E+01

15	.3140E+02	.3601E+02	.1514E+01	.1801E-06	-.3963E+00	.1213E+00	.7683E-06	-.2356E+01	-.7849E+02	.1887E+01
16	.3805E+02	.3400E+02	.1546E+01	.1605E-06	-.4980E+00	.3983E-01	.8812E-06	-.2308E+01	-.7623E+02	.1956E+01
17	.3823E+02	.3200E+02	.1635E+01	.2511E-06	-.4986E+00	.2588E-01	.2300E-05	-.4387E+01	-.7646E+02	.2018E+01
18	.3854E+02	.3000E+02	.1775E+01	.3194E-06	-.4970E+00	.4692E-01	.2269E-05	-.6199E+01	-.7695E+02	.2077E+01
19	.3960E+02	.2801E+02	.1957E+01	.3147E-06	-.4891E+00	.1428E+00	.1218E-05	-.7189E+01	-.7886E+02	.2144E+01
20	.6746E+02	.2602E+02	.2138E+01	.1634E-06	-.6083E+00	.6384E+00	.4764E-06	-.9476E+01	-.1010E+03	.2213E+01
21	.8652E+02	.2501E+02	.2238E+01	.1087E-06	-.9425E+00	.5980E+00	.5054E-06	-.8199E+01	-.8660E+02	.2269E+01
22	.9582E+02	.2402E+02	.2328E+01	.1019E-06	-.9304E+00	.8284E+00	.4822E-06	-.8484E+01	-.9543E+02	.2289E+01
23	.1270E+03	.2302E+02	.2415E+01	.8818E-07	-.9064E+00	.1368E+01	.6593E-06	-.8996E+01	-.1265E+03	.2277E+01
24	.2502E+03	.2203E+02	.2470E+01	.5613E-08	-.1191E+01	.3043E+01	-.5725E-06	-.8764E+01	-.1877E+03	.2252E+01
25	.3511E+03	.2152E+02	.2485E+01	-.4261E-07	-.2499E+01	.3800E+01	-.1977E-06	-.4708E+01	-.1333E+03	.2225E+01
26	.3733E+03	.2127E+02	.2497E+01	-.5718E-07	-.3838E+01	.2867E+01	-.3081E-06	-.2856E+01	-.9514E+02	.2119E+01
27	.3560E+03	.2101E+02	.2500E+01	-.3480E-07	-.3969E+01	.2194E+01	-.2375E-06	.5446E+00	-.9001E+02	.2022E+01
28	.3430E+03	.2076E+02	.2493E+01	-.6572E-08	-.4010E+01	.1693E+01	-.1051E-06	.2522E+01	-.8660E+02	.1970E+01
29	.3294E+03	.2051E+02	.2485E+01	.6897E-08	-.3985E+01	.1233E+01	-.3827E-07	.2041E+01	-.8331E+02	.1951E+01
30	.3158E+03	.2025E+02	.2481E+01	.9425E-08	-.3932E+01	.6970E+00	-.3773E-07	.1719E+01	-.8062E+02	.1957E+01
31	.2116E+03	.2000E+02	.2474E+01	-.1133E-08	-.2674E+01	-.2425E+00	-.1258E-06	.3456E+01	-.7882E+02	.1988E+01
32	.1753E+03	.1951E+02	.2448E+01	-.4167E-07	-.2078E+01	.8001E+00	-.3292E-06	.5362E+01	-.8643E+02	.2050E+01
33	.1199E+03	.1901E+02	.2413E+01	-.8998E-07	-.1397E+01	.6332E+00	-.6769E-06	.7270E+01	-.8910E+02	.2133E+01
34	.1700E+03	.1802E+02	.2327E+01	.1358E-07	-.1178E+01	.1910E+01	.1234E-05	.1518E+02	-.1689E+03	.2233E+01
35	.1929E+03	.1702E+02	.2235E+01	.8698E-07	-.1210E+01	.2321E+01	.1586E-05	.1729E+02	-.1926E+03	.2315E+01
36	.2093E+03	.1603E+02	.2148E+01	.1221E-06	-.1231E+01	.2650E+01	.1284E-05	.1817E+02	-.2091E+03	.2381E+01
37	.1512E+03	.1503E+02	.2061E+01	.6136E-07	-.8437E+00	.1997E+01	.2513E-05	.2001E+02	-.2265E+03	.2415E+01
38	.1777E+03	.1303E+02	.1883E+01	-.1014E-06	-.7302E+00	.2609E+01	.3229E-05	.3129E+02	-.3551E+03	.2446E+01
39	.1731E+03	.1103E+02	.1709E+01	-.2193E-06	-.8021E+00	.2659E+01	.2521E-05	.2625E+02	-.3028E+03	.2412E+01
40	.1502E+03	.9529E+01	.1580E+01	-.2518E-06	-.8685E+00	.2334E+01	-.2086E-05	.1948E+02	-.2252E+03	.2336E+01
41	.1329E+03	.8029E+01	.1449E+01	-.2300E-06	-.8498E+00	.2104E+01	-.3700E-05	.1733E+02	-.1993E+03	.2223E+01
42	.1487E+03	.6530E+01	.1319E+01	-.1184E-06	-.1008E+01	.2406E+01	-.5074E-06	.1608E+02	-.1859E+03	.2132E+01
43	.1551E+03	.5529E+01	.1233E+01	.5036E-07	-.1212E+01	.2472E+01	.4057E-06	.1336E+02	-.1552E+03	.1985E+01
44	.1430E+03	.4529E+01	.1147E+01	.1811E-06	-.1197E+01	.2268E+01	.6737E-06	.1241E+02	-.1430E+03	.1805E+01
45	.1830E+03	.3529E+01	.1060E+01	.1964E-06	-.1582E+01	.2910E+01	.1079E-05	.1179E+02	-.1373E+03	.1649E+01
46	.2344E+03	.3028E+01	.1018E+01	-.9098E-07	-.2296E+01	.3582E+01	.2345E-06	.9843E+01	-.1174E+03	.1506E+01
47	.2139E+03	.2527E+01	.9756E+00	.3027E-06	-.2265E+01	.3163E+01	.5906E-06	.9079E+01	-.1071E+03	.1380E+01
48	.2862E+03	.2026E+01	.9329E+00	.2151E-07	-.3189E+01	.4129E+01	.3428E-06	.8298E+01	-.1005E+03	.1285E+01
49	.4372E+03	.1824E+01	.9176E+00	.7030E-08	-.5412E+01	.5911E+01	.4253E-07	.6749E+01	-.8815E+02	.1215E+01
50	.3979E+03	.1623E+01	.9020E+00	-.6999E-08	-.5354E+01	.5040E+01	-.1365E-07	.6256E+01	-.8020E+02	.1171E+01
51	.3682E+03	.1421E+01	.8862E+00	-.4144E-08	-.5308E+01	.4366E+01	.1343E-08	.5870E+01	-.7420E+02	.1147E+01
52	.3447E+03	.1220E+01	.8702E+00	.4791E-08	-.5270E+01	.3823E+01	.1881E-07	.5550E+01	-.6943E+02	.1139E+01
53	.4795E+03	.1018E+01	.8540E+00	.4044E-08	-.7726E+01	.4970E+01	.9595E-08	-.2054E+02	-.4885E+02	.1146E+01
54	.1057E+04	.1016E+01	.9558E+00	-.6520E-08	-.1820E+02	.9602E+01	-.5951E-08	-.1050E+03	-.2719E+01	.1127E+01
55	.9705E+03	.1013E+01	.1053E+01	-.1095E-07	-.1784E+02	.7340E+01	.6813E-08	-.1254E+03	-.2797E+01	.1092E+01
56	.6722E+03	.1010E+01	.1214E+01	.3111E-07	-.1309E+02	.3972E+01	-.6174E-07	-.1625E+03	-.2050E+01	.1040E+01
57	.4356E+03	.1007E+01	.1536E+01	-.4829E-07	-.8942E+01	.1815E+01	.1021E-06	-.2337E+03	-.1262E+01	.1102E+01
58	.2994E+03	.1005E+01	.2287E+01	.7782E-07	-.6425E+01	.7940E+00	-.1855E-07	-.3745E+03	-.3203E+00	.9977E+00
59	.1806E+03	.1005E+01	.4038E+01	-.2746E-07	-.3895E+01	.5366E+00	.9744E-10	-.3386E+03	.2763E+00	.9997E+00
60	.1141E+03	.1008E+01	.6037E+01	-.2468E-09	-.2414E+01	.5042E+00	.1499E-09	-.2281E+03	.3697E+00	.1000E+01
61	.7528E+02	.1012E+01	.8035E+01	.2073E-10	-.1522E+01	.5041E+00	.2273E-10	-.1504E+03	.3464E+00	.1000E+01
62	.5185E+02	.1017E+01	.1003E+02	-.1843E-12	-.9648E+00	.5035E+00	.1065E-10	-.1035E+03	.2845E+00	.1000E+01
63	.3858E+02	.1023E+01	.1203E+02	-.7966E-12	-.6268E+00	.5029E+00	-.2035E-11	-.7698E+02	.2086E+00	.1000E+01
64	.3135E+02	.1028E+01	.1402E+02	-.7659E-12	-.4196E+00	.5021E+00	-.3206E-11	-.6254E+02	.1355E+00	.1000E+01
65	.2757E+02	.1031E+01	.1602E+02	.1035E-11	-.2967E+00	.5012E+00	.1306E-11	-.5505E+02	.7213E-01	.1000E+01
66	.2312E+02	.1033E+01	.1802E+02	.6121E-11	-.2259E+00	.4458E+00	.5239E-10	-.5189E+02	.5956E-01	.1000E+01
67	.1871E+02	.1036E+01	.2051E+02	-.1291E-10	-.7777E-01	.4015E+00	-.3791E-09	-.4661E+02	.4280E-01	.1000E+01
68	.1978E+02	.1037E+01	.2300E+02	-.7361E-10	.1475E-01	.4406E+00	-.4775E-09	-.4440E+02	.1445E+02	.1000E+01
69	.2249E+02	.2498E+01	.2500E+02	-.2277E-10	.3987E-01	.5046E+00	.2471E-09	-.4046E+02	.5194E+02	.1000E+01
70	.2412E+02	.5658E+01	.2660E+02	.3551E-09	.3779E-01	.5402E+00	.1382E-08	-.3784E+02	.9731E+02	.1000E+01
71	.2182E+02	.1057E+02	.2813E+02	.1250E-08	.6539E-01	.4775E+00	.3963E-08	-.2720E+02	.1350E+03	.1000E+01
72	.1451E+02	.1804E+02	.2909E+02	-.1354E-08	.7904E-01	.2968E+00	-.5005E-08	-.1327E+02	.1337E+03	.9999E+00
73	.3907E+01	.2900E+02	.2996E+02	0.	.7866E-01	0.	0.	-.3256E+01	.4967E+02	.9999E+00

SECOND INDEX= 32

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9826E+00	.5228E+00	.7362E+00	-.2431E-02	.4412E+00	.2436E+01	.9297E+00	.1880E+01	-.7362E+00	.2431E-02	-.2029E-02
2	.9825E+00	.5228E+00	.7363E+00	-.2437E-02	.4412E+00	.2436E+01	.9297E+00	.1880E+01	-.7363E+00	.2437E-02	-.2038E-02
3	.9852E+00	.5214E+00	.7342E+00	-.1501E-02	.4400E+00	.2452E+01	.9306E+00	.1869E+01	-.7342E+00	.1501E-02	-.1727E-02

4	.9704E+00	.5081E+00	.7268E+00	-.3194E-02	.4269E+00	.2504E+01	.9287E+00	.1841E+01	-.7268E+00	.3194E-02	-.3454E-02
5	.9142E+00	.4762E+00	.7148E+00	-.1216E-01	.3948E+00	.2583E+01	.9194E+00	.1806E+01	-.7149E+00	-.2307E-03	-.1000E-01
6	.8549E+00	.4438E+00	.7026E+00	-.2276E-01	.3628E+00	.2666E+01	.9092E+00	.1773E+01	-.7031E+00	-.3353E-02	-.1692E-01
7	.8302E+00	.4298E+00	.6988E+00	-.2728E-01	.3502E+00	.2708E+01	.9072E+00	.1761E+01	-.6993E+00	-.4232E-03	-.1980E-01
8	.8244E+00	.4276E+00	.7031E+00	-.2822E-01	.3500E+00	.2708E+01	.9104E+00	.1774E+01	-.7036E+00	.3470E-03	-.2048E-01
9	.8164E+00	.4272E+00	.7114E+00	-.2982E-01	.3520E+00	.2685E+01	.9139E+00	.1803E+01	-.7119E+00	.1610E-02	-.2141E-01
10	.8208E+00	.4229E+00	.7068E+00	-.2987E-01	.3491E+00	.2739E+01	.9180E+00	.1777E+01	-.7074E+00	.1841E-02	-.2090E-01
11	.8189E+00	.4182E+00	.7057E+00	-.2995E-01	.3464E+00	.2775E+01	.9218E+00	.1767E+01	-.7063E+00	.1967E-02	-.2112E-01
12	.8162E+00	.4133E+00	.7056E+00	-.2994E-01	.3438E+00	.2812E+01	.9266E+00	.1759E+01	-.7062E+00	.1982E-02	-.2143E-01
13	.8222E+00	.4045E+00	.6953E+00	-.2850E-01	.3373E+00	.2920E+01	.9331E+00	.1708E+01	-.6960E+00	.9486E-03	-.2073E-01
14	.8247E+00	.3939E+00	.6848E+00	-.2615E-01	.3294E+00	.3039E+01	.9403E+00	.1658E+01	-.6853E+00	-.9508E-03	-.2044E-01
15	.8193E+00	.3816E+00	.6764E+00	-.2294E-01	.3203E+00	.3157E+01	.9477E+00	.1616E+01	-.6775E+00	.2714E-02	-.2107E-01
16	.7835E+00	.3537E+00	.6556E+00	-.2409E-01	.2947E+00	.3357E+01	.9477E+00	.1543E+01	-.6563E+00	.4294E-02	-.2525E-01
17	.7072E+00	.3098E+00	.6202E+00	-.3219E-01	.2521E+00	.3648E+01	.9356E+00	.1439E+01	-.6211E+00	-.3400E-02	-.3415E-01
18	.6376E+00	.2702E+00	.5773E+00	-.3987E-01	.2140E+00	.3984E+01	.9219E+00	.1318E+01	-.5785E+00	-.6658E-02	-.4227E-01
19	.6005E+00	.2454E+00	.5370E+00	-.4267E-01	.1907E+00	.4293E+01	.9154E+00	.1205E+01	-.5373E+00	-.6719E-02	-.4659E-01
20	.5924E+00	.2343E+00	.5056E+00	-.4210E-01	.1804E+00	.4518E+01	.9157E+00	.1117E+01	-.5025E+00	-.7304E-02	-.4753E-01
21	.6032E+00	.2337E+00	.4864E+00	-.4103E-01	.1793E+00	.4616E+01	.9173E+00	.1063E+01	-.4856E+00	-.5475E-02	-.4627E-01
22	.6364E+00	.2444E+00	.4826E+00	-.3875E-01	.1880E+00	.4574E+01	.9211E+00	.1050E+01	-.4806E+00	-.5992E-02	-.4240E-01
23	.6999E+00	.2692E+00	.4981E+00	-.3213E-01	.2099E+00	.4394E+01	.9304E+00	.1083E+01	-.4936E+00	-.6928E-02	-.3500E-01
24	.7922E+00	.3075E+00	.5250E+00	-.2005E-01	.2448E+00	.4129E+01	.9474E+00	.1147E+01	-.5178E+00	-.9177E-02	-.2423E-01
25	.8906E+00	.3517E+00	.5563E+00	-.1305E-01	.2851E+00	.3845E+01	.9530E+00	.1222E+01	-.5506E+00	-.5870E-02	-.1276E-01
26	.9756E+00	.4059E+00	.6126E+00	-.5503E-02	.3381E+00	.3448E+01	.9632E+00	.1383E+01	-.6061E+00	-.1108E-01	-.2849E-02
27	.1080E+01	.4672E+00	.6565E+00	.9066E-02	.3997E+00	.3134E+01	.9761E+00	.1511E+01	-.6545E+00	-.4133E-02	.9327E-02
28	.1145E+01	.5069E+00	.6763E+00	.1905E-01	.4380E+00	.2964E+01	.9796E+00	.1576E+01	-.6773E+00	.1910E-02	.1687E-01
29	.1147E+01	.5132E+00	.6765E+00	.1909E-01	.4409E+00	.2918E+01	.9730E+00	.1585E+01	-.6762E+00	-.1708E-02	.1714E-01
30	.1159E+01	.5185E+00	.6728E+00	.1955E-01	.4434E+00	.2907E+01	.9696E+00	.1576E+01	-.6722E+00	-.4608E-02	.1852E-01
31	.1234E+01	.5430E+00	.6664E+00	.2842E-01	.4656E+00	.2901E+01	.9746E+00	.1549E+01	-.6670E+00	.2871E-03	.2728E-01
32	.1338E+01	.5708E+00	.6473E+00	.3940E-01	.4879E+00	.2933E+01	.9781E+00	.1483E+01	-.6485E+00	.2738E-04	.3943E-01
33	.1433E+01	.5912E+00	.6180E+00	.4696E-01	.4994E+00	.2992E+01	.9755E+00	.1393E+01	-.6207E+00	.1852E-02	.5055E-01
34	.1484E+01	.5981E+00	.5865E+00	.4969E-01	.4953E+00	.3046E+01	.9649E+00	.1308E+01	-.5918E+00	.3578E-02	.5639E-01
35	.1501E+01	.5868E+00	.5559E+00	.4927E-01	.4703E+00	.3169E+01	.9469E+00	.1178E+01	-.5347E+00	-.3707E-02	.5837E-01
36	.1499E+01	.5699E+00	.4781E+00	.4365E-01	.4400E+00	.3293E+01	.9260E+00	.1036E+01	-.4738E+00	-.6621E-02	.5818E-01
37	.1506E+01	.5621E+00	.4310E+00	.3926E-01	.4214E+00	.3373E+01	.9094E+00	.9254E+00	-.4283E+00	-.4624E-02	.5898E-01
38	.1514E+01	.5556E+00	.3836E+00	.3327E-01	.4055E+00	.3447E+01	.8950E+00	.8165E+00	-.3874E+00	.2380E-02	.5990E-01
39	.1512E+01	.5588E+00	.3787E+00	.3201E-01	.4039E+00	.3415E+01	.8869E+00	.8087E+00	-.3846E+00	.4665E-02	.5973E-01
40	.1518E+01	.5733E+00	.4082E+00	.3415E-01	.4173E+00	.3309E+01	.8869E+00	.8809E+00	-.4144E+00	.4946E-02	.6046E-01
41	.1533E+01	.5981E+00	.4574E+00	.4048E-01	.4437E+00	.3148E+01	.8926E+00	.1004E+01	-.4573E+00	-.2053E-02	.6215E-01
42	.1549E+01	.6363E+00	.5243E+00	.4624E-01	.4862E+00	.2917E+01	.9025E+00	.1181E+01	-.5243E+00	-.2177E-02	.6406E-01
43	.1551E+01	.6841E+00	.5967E+00	.5291E-01	.5401E+00	.2639E+01	.9119E+00	.1393E+01	-.5960E+00	-.3271E-02	.6421E-01
44	.1537E+01	.7435E+00	.6689E+00	.6004E-01	.6066E+00	.2327E+01	.9195E+00	.1635E+01	-.6674E+00	-.4547E-02	.6263E-01
45	.1535E+01	.8026E+00	.7192E+00	.6234E-01	.6705E+00	.2089E+01	.9246E+00	.1827E+01	-.7218E+00	-.1457E-03	.6244E-01
46	.1536E+01	.8615E+00	.7578E+00	.6624E-01	.7327E+00	.1893E+01	.9277E+00	.1994E+01	-.7577E+00	-.3322E-02	.6251E-01
47	.1490E+01	.9079E+00	.8171E+00	.7179E-01	.8093E+00	.1706E+01	.9535E+00	.2241E+01	-.8175E+00	-.3229E-02	.5714E-01
48	.1489E+01	.9861E+00	.8512E+00	.7622E-01	.8936E+00	.1518E+01	.9562E+00	.2434E+01	-.8481E+00	-.7689E-02	.5697E-01
49	.1510E+01	.1091E+01	.8862E+00	.8348E-01	.1010E+01	.1337E+01	.9640E+00	.2648E+01	-.8753E+00	-.1871E-01	.5950E-01
50	.1540E+01	.1209E+01	.9213E+00	.8809E-01	.1149E+01	.1181E+01	.9777E+00	.2870E+01	-.9117E+00	-.1855E-01	.6298E-01
51	.1571E+01	.1316E+01	.9467E+00	.9283E-01	.1277E+01	.1069E+01	.9885E+00	.3047E+01	-.9371E+00	-.2010E-01	.6662E-01
52	.1578E+01	.1374E+01	.9591E+00	.9562E-01	.1344E+01	.1012E+01	.9927E+00	.3147E+01	-.9502E+00	-.2068E-01	.6742E-01
53	.1547E+01	.1339E+01	.9624E+00	.8488E-01	.1317E+01	.1028E+01	.9976E+00	.3146E+01	-.7759E+00	-.4555E+00	.6376E-01
54	.1517E+01	.1342E+01	.9710E+00	.8082E-01	.1329E+01	.1005E+01	.1002E+01	.3207E+01	-.1714E+01	-.2029E+01	.6031E-01
55	.1471E+01	.1340E+01	.9720E+00	.8219E-01	.1319E+01	.9962E+00	.9938E+00	.3259E+01	-.2216E+01	-.2404E+01	.5491E-01
56	.1335E+01	.1295E+01	.9791E+00	.7537E-01	.1268E+01	.9299E+00	.9837E+00	.3385E+01	-.3090E+01	-.3307E+01	.3903E-01
57	.1130E+01	.1017E+01	.9912E+00	.2503E-02	.1029E+01	.1104E+01	.1020E+01	.3291E+01	-.4838E+01	-.4938E+01	.1522E-01
58	.9957E+00	.9968E+00	.1001E+01	-.8611E-03	.9974E+00	.1000E+01	.1000E+01	.3504E+01	-.8165E+01	-.8224E+01	-.4996E-03
59	.9996E+00	.9999E+00	.1000E+01	-.2492E-04	.9999E+00	.9998E+00	.1000E+01	.3501E+01	-.7382E+01	-.7449E+01	-.4220E-04
60	.1000E+01	.1000E+01	.1000E+01	.5448E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.4862E+01	-.4965E+01	.4102E-05
61	.1000E+01	.1000E+01	.1000E+01	.6606E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.3057E+01	-.3218E+01	.3881E-07
62	.1000E+01	.1000E+01	.1000E+01	.2487E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1934E+01	-.2179E+01	-.1567E-06
63	.1000E+01	.1000E+01	.1000E+01	.1851E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1255E+01	-.1606E+01	-.4307E-07
64	.1000E+01	.1000E+01	.1000E+01	.1546E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.8398E+00	-.1307E+01	.1792E-07
65	.1000E+01	.1000E+01	.1000E+01	.1126E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5942E+00	-.1164E+01	.5454E-07
66	.1000E+01	.1000E+01	.1000E+01	.1151E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5090E+00	-.1122E+01	-.2300E-07
67	.1000E+01	.1000E+01	.1000E+01	.2285E-07	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1945E+00	-.1019E+01	.8859E-07
68	.1000E+01	.1000E+01	.1000E+01	-.8546E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.3473E-01	-.9898E+00	.1508E-05

69	.1000E+01	.1000E+01	.1000E+01	.1777E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1166E+00	-.9109E+00	.6584E-05
70	.1000E+01	.1000E+01	.1000E+01	.2121E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1629E+00	-.8503E+00	.1694E-04
71	.1000E+01	.1000E+01	.1000E+01	.5202E-04	.1000E+01	.9999E+00	.1000E+01	.3500E+01	.4117E+00	-.6019E+00	.2931E-04
72	.1000E+01	.1000E+01	.1000E+01	.7051E-04	.1000E+01	.9998E+00	.1000E+01	.3500E+01	.7303E+00	-.2828E+00	.3722E-04
73	.1000E+01	.1000E+01	.1000E+01	.7045E-04	.1000E+01	.9998E+00	.1000E+01	.3500E+01	.1002E+01	-.6660E-01	.3891E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.2581E+02	.9000E+02	.1756E-01	0.	-.2500E+00	-.5868E-11	0.	.1761E-10	-.1032E+03	.1879E+01
2	.2581E+02	.8600E+02	.1756E-01	.3553E-06	-.2500E+00	.1995E-08	.4313E-05	.5808E-11	-.1032E+03	.1879E+01
3	.2581E+02	.8200E+02	.1756E-01	.1386E-06	-.2500E+00	.7623E-08	.5921E-06	-.2006E-13	-.1032E+03	.1890E+01
4	.2581E+02	.7800E+02	.1756E-01	-.2382E-06	-.2500E+00	.2996E-07	-.4417E-06	.7450E-13	-.1032E+03	.1910E+01
5	.2581E+02	.7400E+02	.1756E-01	-.4478E-06	-.2500E+00	.1148E-06	-.1763E-05	-.1790E+01	-.1032E+03	.1920E+01
6	.2602E+02	.7000E+02	.1563E+00	-.4572E-06	-.2500E+00	.4644E-06	.1884E-05	-.3868E+01	-.1041E+03	.1926E+01
7	.2628E+02	.6600E+02	.3149E+00	-.4105E-06	-.2500E+00	.1983E-05	-.1715E-05	-.4167E+01	-.1051E+03	.1932E+01
8	.2654E+02	.6200E+02	.4735E+00	-.2661E-06	-.2500E+00	.8898E-05	-.1298E-05	-.4210E+01	-.1062E+03	.1928E+01
9	.2683E+02	.5800E+02	.6321E+00	.3821E-07	-.2500E+00	.4209E-04	.5931E-06	-.4254E+01	-.1073E+03	.1911E+01
10	.2712E+02	.5400E+02	.7907E+00	.3874E-06	-.2500E+00	.2108E-03	.4624E-05	-.4302E+01	-.1085E+03	.1941E+01
11	.2743E+02	.5000E+02	.9493E+00	.6260E-06	-.2500E+00	.1127E-02	.4767E-05	-.4350E+01	-.1097E+03	.1958E+01
12	.2776E+02	.4600E+02	.1108E+01	.4887E-06	-.2498E+00	.6601E-02	-.1821E-05	-.4398E+01	-.1110E+03	.1975E+01
13	.3246E+02	.4200E+02	.1266E+01	.1185E-06	-.2835E+00	.5562E-01	-.2267E-05	-.4503E+01	-.1136E+03	.2033E+01
14	.3788E+02	.3900E+02	.1385E+01	.2541E-07	-.3323E+00	.2870E-01	-.2160E-05	-.4497E+01	-.1136E+03	.2093E+01
15	.4746E+02	.3600E+02	.1504E+01	.1462E-06	-.3963E+00	.1220E+00	.9099E-06	-.3564E+01	-.1187E+03	.2147E+01
16	.5746E+02	.3400E+02	.1535E+01	.1889E-06	-.4983E+00	.3986E-01	.1370E-05	-.3475E+01	-.1150E+03	.2215E+01
17	.5763E+02	.3200E+02	.1624E+01	.1518E-06	-.4985E+00	.2589E-01	.1260E-05	-.6616E+01	-.1153E+03	.2283E+01
18	.5795E+02	.3000E+02	.1765E+01	.8671E-07	-.4967E+00	.4693E-01	.5709E-06	-.9338E+01	-.1158E+03	.2360E+01
19	.5940E+02	.2800E+02	.1947E+01	.3841E-07	-.4882E+00	.1431E+00	-.2143E-06	-.1088E+02	-.1185E+03	.2447E+01
20	.1019E+03	.2601E+02	.2131E+01	.1704E-07	-.6070E+00	.6430E+00	-.2474E-06	-.1438E+02	-.1527E+03	.2528E+01
21	.1302E+03	.2501E+02	.2229E+01	.1319E-07	-.9429E+00	.5987E+00	-.3904E-07	-.1230E+02	-.1302E+03	.2581E+01
22	.1442E+03	.2401E+02	.2320E+01	.1264E-07	-.9275E+00	.8306E+00	-.1715E-07	-.1299E+02	-.1438E+03	.2604E+01
23	.1912E+03	.2301E+02	.2409E+01	.1467E-07	-.9019E+00	.1375E+01	.8856E-07	-.1393E+02	-.1908E+03	.2599E+01
24	.3803E+03	.2202E+02	.2466E+01	-.8748E-09	-.1190E+01	.3076E+01	-.1535E-05	-.1332E+02	-.2853E+03	.2576E+01
25	.5357E+03	.2151E+02	.2479E+01	-.9789E-08	-.2532E+01	.3855E+01	-.1618E-06	-.5984E+01	-.2024E+03	.2532E+01
26	.5645E+03	.2126E+02	.2488E+01	-.3002E-07	-.3885E+01	.2866E+01	-.2215E-07	-.3399E+01	-.1428E+03	.2404E+01
27	.5352E+03	.2101E+02	.2491E+01	-.4541E-07	-.3991E+01	.2184E+01	-.2702E-06	.1120E+01	-.1347E+03	.2312E+01
28	.5151E+03	.2076E+02	.2484E+01	-.4565E-07	-.4027E+01	.1683E+01	-.2581E-06	.3984E+01	-.1296E+03	.2258E+01
29	.4949E+03	.2050E+02	.2476E+01	-.3913E-07	-.4003E+01	.1223E+01	-.2306E-06	.3218E+01	-.1246E+03	.2235E+01
30	.4759E+03	.2025E+02	.2471E+01	-.4159E-07	-.3963E+01	.6826E+00	-.2789E-06	.2693E+01	-.1205E+03	.2235E+01
31	.3156E+03	.2000E+02	.2464E+01	-.7805E-07	-.2666E+01	-.2772E+00	-.4976E-06	.5076E+01	-.1179E+03	.2272E+01
32	.2613E+03	.1951E+02	.2439E+01	-.1121E-06	-.2066E+01	.7996E+00	-.7048E-06	.7888E+01	-.1295E+03	.2344E+01
33	.1790E+03	.1901E+02	.2404E+01	-.7044E-07	-.1390E+01	.6292E+00	-.6342E-06	.1050E+02	-.1335E+03	.2424E+01
34	.2570E+03	.1801E+02	.2322E+01	.8278E-07	-.1172E+01	.1917E+01	.1382E-05	.2238E+02	-.2559E+03	.2480E+01
35	.2938E+03	.1701E+02	.2230E+01	.1369E-06	-.1209E+01	.2329E+01	.1101E-05	.2622E+02	-.2937E+03	.2557E+01
36	.3207E+03	.1602E+02	.2143E+01	.1283E-06	-.1230E+01	.2655E+01	.7052E-06	.2774E+02	-.3205E+03	.2630E+01
37	.2328E+03	.1502E+02	.2057E+01	.1473E-06	-.8426E+00	.2000E+01	-.1040E-05	.3065E+02	-.3490E+03	.2679E+01
38	.2774E+03	.1302E+02	.1880E+01	.1119E-06	-.7297E+00	.2612E+01	-.4033E-06	.4873E+02	-.5545E+03	.2724E+01
39	.2733E+03	.1102E+02	.1705E+01	.1005E-06	-.8032E+00	.2662E+01	-.1559E-06	.4163E+02	-.4783E+03	.2706E+01
40	.2385E+03	.9517E+01	.1575E+01	.4420E-07	-.8694E+00	.2333E+01	-.4018E-06	.3110E+02	-.3578E+03	.2649E+01
41	.2123E+03	.8017E+01	.1445E+01	-.6132E-09	-.8500E+00	.2103E+01	.3603E-06	.2776E+02	-.3184E+03	.2563E+01
42	.2391E+03	.6517E+01	.1314E+01	.4724E-07	-.1009E+01	.2406E+01	.3876E-06	.2598E+02	-.2989E+03	.2435E+01
43	.2501E+03	.5517E+01	.1227E+01	.2080E-06	-.1214E+01	.2473E+01	.1004E-05	.2168E+02	-.2502E+03	.2267E+01
44	.2309E+03	.4517E+01	.1140E+01	.3113E-06	-.1197E+01	.2266E+01	.4987E-06	.2011E+02	-.2309E+03	.2067E+01
45	.2965E+03	.3517E+01	.1053E+01	.2515E-06	-.1585E+01	.2912E+01	.8261E-07	.1926E+02	-.2225E+03	.1913E+01
46	.3805E+03	.3016E+01	.1010E+01	-.1384E-06	-.2304E+01	.3591E+01	-.1919E-06	.1626E+02	-.1905E+03	.1783E+01
47	.3469E+03	.2516E+01	.9676E+00	.1492E-06	-.2270E+01	.3166E+01	-.4922E-06	.1490E+02	-.1736E+03	.1641E+01
48	.4654E+03	.2015E+01	.9244E+00	-.1120E-07	-.3202E+01	.4143E+01	.5586E-07	.1381E+02	-.1632E+03	.1510E+01
49	.7146E+03	.1814E+01	.9082E+00	.1855E-07	-.5460E+01	.5956E+01	.6357E-07	.1166E+02	-.1436E+03	.1385E+01
50	.6502E+03	.1613E+01	.8918E+00	-.1767E-09	-.5393E+01	.5069E+01	.7937E-07	.1072E+02	-.1306E+03	.1274E+01
51	.6022E+03	.1412E+01	.8752E+00	-.6760E-08	-.5341E+01	.4387E+01	.4592E-07	.1001E+02	-.1210E+03	.1194E+01
52	.5646E+03	.1211E+01	.8585E+00	.5567E-08	-.5298E+01	.3837E+01	.1413E-07	.9445E+01	-.1134E+03	.1149E+01
53	.7914E+03	.1011E+01	.8418E+00	.6874E-08	-.7803E+01	.5011E+01	.1156E-07	-.3334E+02	-.8001E+02	.1155E+01
54	.1785E+04	.1009E+01	.9428E+00	-.1877E-08	-.1876E+02	.9874E+01	-.8553E-09	-.1757E+03	-.2672E+01	.1131E+01
55	.1645E+04	.1008E+01	.1039E+01	-.7736E-08	-.1840E+02	.7549E+01	.8238E-08	-.2112E+03	-.2747E+01	.1098E+01
56	.1135E+04	.1006E+01	.1200E+01	.2690E-07	-.1341E+02	.4053E+01	-.4056E-07	-.2735E+03	-.1994E+01	.1031E+01
57	.7339E+03	.1004E+01	.1520E+01	-.4208E-07	-.9112E+01	.1838E+01	.5517E-07	-.3932E+03	-.1219E+01	.1111E+01
58	.5038E+03	.1003E+01	.2271E+01	.5669E-07	-.6525E+01	.7965E+00	-.1169E-07	-.6300E+03	-.3094E+00	.9989E+00

59	.3023E+03	.1003E+01	.4021E+01	-.1970E-07	-.3937E+01	.5352E+00	.5142E-09	-.5668E+03	.2624E+00	.9998E+00
60	.1902E+03	.1004E+01	.6021E+01	-.1819E-09	-.2432E+01	.5024E+00	-.7470E-10	-.3803E+03	.3501E+00	.1000E+01
61	.1252E+03	.1007E+01	.8020E+01	.1543E-10	-.1530E+01	.5023E+00	-.4331E-10	-.2502E+03	.3269E+00	.1000E+01
62	.8614E+02	.1010E+01	.1002E+02	.1276E-12	-.9680E+00	.5020E+00	-.1410E-10	-.1721E+03	.2676E+00	.1000E+01
63	.6413E+02	.1013E+01	.1202E+02	-.4099E-13	-.6283E+00	.5016E+00	-.6334E-13	-.1281E+03	.1954E+00	.1000E+01
64	.5222E+02	.1016E+01	.1401E+02	-.2558E-12	-.4205E+00	.5012E+00	-.6811E-12	-.1043E+03	.1259E+00	.1000E+01
65	.4610E+02	.1018E+01	.1601E+02	-.1916E-12	-.2974E+00	.5007E+00	-.3973E-12	-.9211E+02	.6566E-01	.1000E+01
66	.3881E+02	.1018E+01	.1801E+02	.2007E-11	-.2266E+00	.4452E+00	.3490E-10	-.8719E+02	.5382E-01	.1000E+01
67	.3150E+02	.1020E+01	.2050E+02	-.3798E-11	-.7796E-01	.4008E+00	-.2545E-09	-.7660E+02	.3816E-01	.1000E+01
68	.3348E+02	.1021E+01	.2300E+02	-.4435E-10	.1470E-01	.4402E+00	-.5842E-09	-.7524E+02	.2445E+02	.1000E+01
69	.3818E+02	.2481E+01	.2500E+02	-.3325E-10	.3980E-01	.5046E+00	.1129E-09	-.6872E+02	.8821E+02	.1000E+01
70	.4094E+02	.5641E+01	.2660E+02	.1543E-09	.3761E-01	.5405E+00	.1339E-08	-.6425E+02	.1652E+03	.1000E+01
71	.3690E+02	.1055E+02	.2814E+02	.6150E-09	.6519E-01	.4779E+00	.2640E-08	-.4606E+02	.2284E+03	.1000E+01
72	.2490E+02	.1803E+02	.2909E+02	-.4204E-09	.7879E-01	.2969E+00	-.2663E-08	-.2238E+02	.2241E+03	.9999E+00
73	.6464E+01	.2900E+02	.2998E+02	0.	.7852E-01	0.	0.	-.5489E+01	.8232E+02	.1000E+01

SECOND INDEX= 33

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9786E+00	.4359E+00	.5872E+00	.9811E-03	.3373E+00	.3130E+01	.8956E+00	.1372E+01	-.5872E+00	-.9811E-03	-.2496E-02
2	.9786E+00	.4359E+00	.5872E+00	.9889E-03	.3373E+00	.3130E+01	.8956E+00	.1372E+01	-.5872E+00	-.9889E-03	-.2496E-02
3	.9785E+00	.4345E+00	.5862E+00	.1258E-02	.3365E+00	.3143E+01	.8967E+00	.1367E+01	-.5862E+00	-.1258E-02	-.2512E-02
4	.9647E+00	.4242E+00	.5767E+00	-.1185E-02	.3270E+00	.3205E+01	.8954E+00	.1338E+01	-.5767E+00	.1185E-02	-.4111E-02
5	.9060E+00	.3973E+00	.5613E+00	-.9161E-02	.3015E+00	.3299E+01	.8848E+00	.1301E+01	-.5614E+00	-.5753E-03	-.1096E-01
6	.8450E+00	.3706E+00	.5468E+00	-.1799E-01	.2766E+00	.3391E+01	.8733E+00	.1268E+01	-.5471E+00	-.2334E-02	-.1808E-01
7	.8232E+00	.3600E+00	.5428E+00	-.2113E-01	.2681E+00	.3441E+01	.8723E+00	.1257E+01	-.5432E+00	-.4021E-03	-.2061E-01
8	.8213E+00	.3580E+00	.5457E+00	-.2117E-01	.2681E+00	.3460E+01	.8768E+00	.1262E+01	-.5461E+00	-.4725E-03	-.2084E-01
9	.8153E+00	.3581E+00	.5583E+00	-.2029E-01	.2706E+00	.3433E+01	.8815E+00	.1296E+01	-.5587E+00	-.1858E-02	-.2154E-01
10	.8191E+00	.3567E+00	.5571E+00	-.2062E-01	.2707E+00	.3468E+01	.8863E+00	.1288E+01	-.5575E+00	-.1481E-02	-.2110E-01
11	.8199E+00	.3534E+00	.5537E+00	-.1951E-01	.2691E+00	.3517E+01	.8905E+00	.1273E+01	-.5542E+00	-.2456E-02	-.2100E-01
12	.8214E+00	.3485E+00	.5462E+00	-.1842E-01	.2660E+00	.3593E+01	.8953E+00	.1246E+01	-.5465E+00	-.3231E-02	-.2083E-01
13	.8271E+00	.3414E+00	.5291E+00	-.1950E-01	.2608E+00	.3724E+01	.9013E+00	.1190E+01	-.5292E+00	-.1502E-02	-.2017E-01
14	.8275E+00	.3339E+00	.5180E+00	-.1826E-01	.2563E+00	.3843E+01	.9091E+00	.1153E+01	-.5183E+00	-.2265E-02	-.2012E-01
15	.8242E+00	.3265E+00	.5129E+00	-.1376E-01	.2526E+00	.3951E+01	.9187E+00	.1130E+01	-.5126E+00	-.1710E-02	-.2050E-01
16	.7906E+00	.3054E+00	.4877E+00	-.1342E-01	.2347E+00	.4161E+01	.9194E+00	.1061E+01	-.4878E+00	-.1283E-02	-.2442E-01
17	.7157E+00	.2681E+00	.4281E+00	-.1850E-01	.1997E+00	.4521E+01	.9043E+00	.9178E+00	-.4285E+00	-.6071E-02	-.3316E-01
18	.6474E+00	.2355E+00	.3531E+00	-.2157E-01	.1690E+00	.4901E+01	.8856E+00	.7468E+00	-.3536E+00	-.6901E-02	-.4112E-01
19	.6082E+00	.2166E+00	.2890E+00	-.2119E-01	.1514E+00	.5176E+01	.8734E+00	.6054E+00	-.2887E+00	-.5547E-02	-.4569E-01
20	.5961E+00	.2095E+00	.2456E+00	-.1981E-01	.1444E+00	.5318E+01	.8680E+00	.5111E+00	-.2434E+00	-.4468E-02	-.4710E-01
21	.6070E+00	.2118E+00	.2337E+00	-.1919E-01	.1460E+00	.5333E+01	.8698E+00	.4848E+00	-.2330E+00	-.3173E-02	-.4584E-01
22	.6385E+00	.2216E+00	.2238E+00	-.1802E-01	.1528E+00	.5266E+01	.8711E+00	.4629E+00	-.2227E+00	-.2967E-02	-.4215E-01
23	.7007E+00	.2414E+00	.2197E+00	-.1499E-01	.1672E+00	.5124E+01	.8757E+00	.4523E+00	-.2184E+00	-.2171E-02	-.3491E-01
24	.7943E+00	.2729E+00	.2568E+00	-.1081E-01	.1933E+00	.4894E+01	.8907E+00	.5272E+00	-.2543E+00	-.2936E-02	-.2398E-01
25	.8918E+00	.3156E+00	.3724E+00	-.8954E-02	.2352E+00	.4482E+01	.9176E+00	.7756E+00	-.3716E+00	-.1038E-02	-.1262E-01
26	.9707E+00	.3580E+00	.4530E+00	-.4400E-02	.2760E+00	.4090E+01	.9318E+00	.9629E+00	-.4499E+00	-.5442E-02	-.3414E-02
27	.1076E+01	.4063E+00	.5027E+00	.5920E-02	.3225E+00	.3799E+01	.9474E+00	.1081E+01	-.5021E+00	-.1121E-02	.8921E-02
28	.1143E+01	.4395E+00	.5284E+00	.1477E-01	.3532E+00	.3615E+01	.9526E+00	.1147E+01	-.5296E+00	.2258E-02	.1672E-01
29	.1143E+01	.4425E+00	.5241E+00	.1426E-01	.3521E+00	.3578E+01	.9437E+00	.1142E+01	-.5243E+00	-.2738E-03	.1663E-01
30	.1151E+01	.4447E+00	.5143E+00	.1424E-01	.3509E+00	.3578E+01	.9381E+00	.1119E+01	-.5141E+00	-.2438E-02	.1758E-01
31	.1229E+01	.4671E+00	.5055E+00	.2127E-01	.3699E+00	.3566E+01	.9442E+00	.1092E+01	-.5060E+00	.2298E-03	.2666E-01
32	.1334E+01	.4947E+00	.4847E+00	.2883E-01	.3914E+00	.3572E+01	.9488E+00	.1035E+01	-.4857E+00	.3438E-03	.3892E-01
33	.1433E+01	.5191E+00	.4536E+00	.3424E-01	.4065E+00	.3588E+01	.9469E+00	.9583E+00	-.4551E+00	.5862E-03	.5045E-01
34	.1490E+01	.5318E+00	.4147E+00	.3750E-01	.4078E+00	.3608E+01	.9354E+00	.8706E+00	-.4125E+00	-.4285E-02	.5717E-01
35	.1512E+01	.5259E+00	.3313E+00	.3253E-01	.3864E+00	.3718E+01	.9120E+00	.6871E+00	-.3254E+00	-.8029E-02	.5971E-01
36	.1505E+01	.5191E+00	.2503E+00	.2410E-01	.3652E+00	.3770E+01	.8855E+00	.5168E+00	-.2446E+00	-.7303E-02	.5893E-01
37	.1509E+01	.5195E+00	.1753E+00	.1656E-01	.3531E+00	.3774E+01	.8639E+00	.3617E+00	-.1723E+00	-.3993E-02	.5935E-01
38	.1513E+01	.5250E+00	.1567E+00	.1289E-01	.3517E+00	.3730E+01	.8531E+00	.3241E+00	-.1618E+00	.4643E-02	.5988E-01
39	.1515E+01	.5298E+00	.1470E+00	.1149E-01	.3510E+00	.3688E+01	.8445E+00	.3052E+00	-.1538E+00	.6509E-02	.6008E-01
40	.1522E+01	.5366E+00	.1642E+00	.1232E-01	.3548E+00	.3638E+01	.8414E+00	.3423E+00	-.1719E+00	.7476E-02	.6088E-01
41	.1533E+01	.5452E+00	.1957E+00	.1547E-01	.3622E+00	.3583E+01	.8422E+00	.4098E+00	-.2016E+00	.5519E-02	.6211E-01
42	.1557E+01	.5673E+00	.2963E+00	.2687E-01	.3903E+00	.3443E+01	.8584E+00	.6286E+00	-.2943E+00	-.3367E-02	.6493E-01
43	.1563E+01	.5946E+00	.3914E+00	.3725E-01	.4240E+00	.3236E+01	.8718E+00	.8486E+00	-.3849E+00	-.8782E-02	.6569E-01
44	.1559E+01	.6262E+00	.4703E+00	.4667E-01	.4602E+00	.3002E+01	.8803E+00	.1048E+01	-.4593E+00	-.1440E-01	.6519E-01
45	.1542E+01	.6705E+00	.5524E+00	.5167E-01	.5078E+00	.2698E+01	.8850E+00	.1281E+01	-.5466E+00	-.8911E-02	.6316E-01
46	.1538E+01	.7116E+00	.6007E+00	.5274E-01	.5475E+00	.2477E+01	.8847E+00	.1435E+01	-.6013E+00	-.1908E-02	.6275E-01
47	.1501E+01	.7284E+00	.6698E+00	.5824E-01	.5937E+00	.2339E+01	.9182E+00	.1639E+01	-.6718E+00	-.5932E-03	.5840E-01

48	.1493E+01	.7890E+00	.7197E+00	.6349E-01	.6558E+00	.2080E+01	.9190E+00	.1838E+01	-.7199E+00	-.3078E-02	.5746E-01
49	.1502E+01	.8829E+00	.7768E+00	.7238E-01	.7550E+00	.1788E+01	.9252E+00	.2094E+01	-.7710E+00	-.1156E-01	.5849E-01
50	.1517E+01	.1023E+01	.8501E+00	.7871E-01	.9196E+00	.1471E+01	.9477E+00	.2453E+01	-.8461E+00	-.1018E-01	.6034E-01
51	.1552E+01	.1191E+01	.9104E+00	.8582E-01	.1122E+01	.1215E+01	.9717E+00	.2803E+01	-.9062E+00	-.1179E-01	.6443E-01
52	.1581E+01	.1337E+01	.9447E+00	.9570E-01	.1290E+01	.1054E+01	.9833E+00	.3055E+01	-.9364E+00	-.1992E-01	.6781E-01
53	.1556E+01	.1337E+01	.9588E+00	.8129E-01	.1310E+01	.1036E+01	.9946E+00	.3122E+01	-.7752E+00	-.4493E+00	.6480E-01
54	.1522E+01	.1341E+01	.9710E+00	.8075E-01	.1329E+01	.1009E+01	.1003E+01	.3201E+01	-.1738E+01	-.2055E+01	.6090E-01
55	.1476E+01	.1339E+01	.9716E+00	.8184E-01	.1319E+01	.9812E+00	.9948E+00	.3250E+01	-.2250E+01	-.2520E+01	.5554E-01
56	.1342E+01	.1309E+01	.9785E+00	.7809E-01	.1279E+01	.9207E+00	.9815E+00	.3393E+01	-.3127E+01	-.3347E+01	.3984E-01
57	.1132E+01	.1013E+01	.9913E+00	.1434E-02	.1027E+01	.1111E+01	.1022E+01	.3282E+01	-.4891E+01	-.4991E+01	.1544E-01
58	.9979E+00	.9982E+00	.1000E+01	-.4874E-03	.9986E+00	.1000E+01	.1000E+01	.3502E+01	-.8298E+01	-.8398E+01	-.2469E-03
59	.9998E+00	.1000E+01	.1000E+01	-.5481E-05	.9999E+00	.9998E+00	.1000E+01	.3500E+01	-.7498E+01	-.7498E+01	-.2760E-04
60	.1000E+01	.1000E+01	.1000E+01	.9989E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.4884E+01	-.4986E+01	.1876E-05
61	.1000E+01	.1000E+01	.1000E+01	-.1740E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.3067E+01	-.3226E+01	.6728E-06
62	.1000E+01	.1000E+01	.1000E+01	-.1144E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1939E+01	-.2182E+01	.3509E-06
63	.1000E+01	.1000E+01	.1000E+01	-.5666E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1257E+01	-.1607E+01	.1392E-06
64	.1000E+01	.1000E+01	.1000E+01	-.3207E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.8413E+00	-.1307E+01	.2995E-07
65	.1000E+01	.1000E+01	.1000E+01	-.2136E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5953E+00	-.1164E+01	-.1896E-07
66	.1000E+01	.1000E+01	.1000E+01	-.1508E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5102E+00	-.1123E+01	-.6485E-07
67	.1000E+01	.1000E+01	.1000E+01	-.5585E-07	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1950E+00	-.1019E+01	.2776E-08
68	.1000E+01	.1000E+01	.1000E+01	-.3720E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.3468E-01	-.9898E+00	.9786E-06
69	.1000E+01	.1000E+01	.1000E+01	.3593E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1164E+00	-.9110E+00	.5203E-05
70	.1000E+01	.1000E+01	.1000E+01	.1665E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1624E+00	-.8507E+00	.1569E-04
71	.1000E+01	.1000E+01	.1000E+01	.5028E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.4110E+00	-.6026E+00	.3138E-04
72	.1000E+01	.1000E+01	.1000E+01	.8886E-04	.1000E+01	.9998E+00	.1000E+01	.3500E+01	.7291E+00	-.2839E+00	.4476E-04
73	.1000E+01	.1000E+01	.1000E+01	.8902E-04	.1000E+01	.9998E+00	.1000E+01	.3500E+01	.1002E+01	-.6726E-01	.4752E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.4019E+02	.9000E+02	.9982E-02	0.	-.2500E+00	0.	0.	.1721E-10	-.1608E+03	.2245E+01
2	.4019E+02	.8600E+02	.9982E-02	.5444E-07	-.2500E+00	.1983E-08	.4803E-06	.5681E-11	-.1608E+03	.2245E+01
3	.4019E+02	.8200E+02	.9982E-02	.7658E-07	-.2500E+00	.7622E-08	.1966E-05	-.1897E-13	-.1608E+03	.2252E+01
4	.4019E+02	.7800E+02	.9982E-02	.5688E-07	-.2500E+00	.2998E-07	.2512E-05	.6582E-13	-.1608E+03	.2274E+01
5	.4019E+02	.7400E+02	.9982E-02	.2460E-07	-.2500E+00	.1148E-06	.2431E-05	-.2709E-13	-.1608E+03	.2300E+01
6	.4043E+02	.7000E+02	.1488E+00	.2681E-07	-.2500E+00	.4644E-06	.3820E-05	-.6013E+01	-.1617E+03	.2280E+01
7	.4072E+02	.6600E+02	.3074E+00	.2350E-07	-.2500E+00	.1983E-05	.2468E-05	-.6460E+01	-.1629E+03	.2286E+01
8	.4102E+02	.6200E+02	.4661E+00	-.4639E-08	-.2500E+00	.8897E-05	.1713E-05	-.6508E+01	-.1641E+03	.2294E+01
9	.4133E+02	.5800E+02	.6247E+00	.5229E-08	-.2500E+00	.4209E-04	-.1138E-06	-.6558E+01	-.1653E+03	.2276E+01
10	.4166E+02	.5400E+02	.7834E+00	.2891E-07	-.2500E+00	.2108E-03	.1141E-05	-.6610E+01	-.1666E+03	.2296E+01
11	.4199E+02	.5000E+02	.9421E+00	.2574E-07	-.2500E+00	.1127E-02	.5411E-06	-.6663E+01	-.1680E+03	.2320E+01
12	.4235E+02	.4600E+02	.1101E+01	-.5313E-07	-.2498E+00	.6602E-02	-.6938E-05	-.6716E+01	-.1694E+03	.2357E+01
13	.4938E+02	.4200E+02	.1259E+01	-.1035E-06	-.2835E+00	.5579E-01	-.1641E-05	-.6853E+01	-.1728E+03	.2423E+01
14	.5744E+02	.3900E+02	.1378E+01	-.7204E-07	-.3322E+00	.2872E-01	-.1102E-05	-.6827E+01	-.1723E+03	.2478E+01
15	.7183E+02	.3600E+02	.1497E+01	.3565E-08	-.3963E+00	.1225E+00	.4167E-06	-.5397E+01	-.1796E+03	.2525E+01
16	.8688E+02	.3400E+02	.1529E+01	-.1454E-07	-.4985E+00	.3988E-01	.1203E-06	-.5243E+01	-.1739E+03	.2589E+01
17	.8699E+02	.3200E+02	.1618E+01	-.9249E-07	-.4985E+00	.2590E-01	-.1347E-05	-.9989E+01	-.1740E+03	.2670E+01
18	.8729E+02	.3000E+02	.1758E+01	-.1478E-06	-.4965E+00	.4693E-01	-.1490E-05	-.1408E+02	-.1745E+03	.2749E+01
19	.8928E+02	.2800E+02	.1940E+01	-.1490E-06	-.4876E+00	.1432E+00	-.4795E-06	-.1644E+02	-.1783E+03	.2807E+01
20	.1541E+03	.2601E+02	.2127E+01	-.7899E-07	-.6062E+00	.6460E+00	-.4763E-07	-.2180E+02	-.2310E+03	.2846E+01
21	.1960E+03	.2501E+02	.2223E+01	-.4932E-07	-.9432E+00	.5992E+00	-.2112E-06	-.1848E+02	-.1961E+03	.2866E+01
22	.2173E+03	.2401E+02	.2315E+01	-.3416E-07	-.9256E+00	.8321E+00	-.2045E-06	-.1979E+02	-.2170E+03	.2882E+01
23	.2882E+03	.2301E+02	.2405E+01	-.2703E-07	-.8989E+00	.1379E+01	-.4262E-06	-.2137E+02	-.2878E+03	.2902E+01
24	.5773E+03	.2201E+02	.2463E+01	-.5112E-08	-.1189E+01	.3099E+01	.1067E-05	-.2022E+02	-.4330E+03	.2911E+01
25	.8149E+03	.2151E+02	.2475E+01	.8424E-08	-.2555E+01	.3892E+01	.6734E-07	-.7870E+01	-.3070E+03	.2826E+01
26	.8529E+03	.2126E+02	.2483E+01	.1122E-07	-.3916E+01	.2866E+01	.1388E-06	-.4197E+01	-.2147E+03	.2712E+01
27	.8050E+03	.2100E+02	.2485E+01	.2014E-08	-.4006E+01	.2177E+01	.1499E-06	.1986E+01	-.2021E+03	.2649E+01
28	.7741E+03	.2075E+02	.2478E+01	-.5119E-08	-.4039E+01	.1677E+01	.2848E-08	.6183E+01	-.1942E+03	.2602E+01
29	.7437E+03	.2050E+02	.2469E+01	-.1737E-08	-.4016E+01	.1216E+01	-.5985E-07	.4988E+01	-.1867E+03	.2582E+01
30	.7165E+03	.2025E+02	.2464E+01	.2342E-08	-.3985E+01	.6729E+00	-.1188E-06	.4156E+01	-.1805E+03	.2588E+01
31	.4720E+03	.2000E+02	.2458E+01	.3094E-08	-.2661E+01	-.3001E+00	-.1966E-06	.7509E+01	-.1766E+03	.2630E+01
32	.3907E+03	.1950E+02	.2433E+01	.8538E-09	-.2058E+01	.7991E+00	-.1332E-06	.1169E+02	-.1944E+03	.2696E+01
33	.2680E+03	.1900E+02	.2398E+01	.1361E-07	-.1386E+01	.6266E+00	.7513E-06	.1536E+02	-.2004E+03	.2760E+01
34	.3888E+03	.1801E+02	.2318E+01	-.1570E-07	-.1167E+01	.1922E+01	-.1063E-05	.3329E+02	-.3878E+03	.2802E+01
35	.4479E+03	.1701E+02	.2226E+01	-.4427E-07	-.1208E+01	.2334E+01	-.1257E-05	.3984E+02	-.4478E+03	.2875E+01
36	.4916E+03	.1601E+02	.2140E+01	-.5818E-07	-.1230E+01	.2659E+01	-.9446E-06	.4244E+02	-.4915E+03	.2900E+01
37	.3588E+03	.1501E+02	.2054E+01	-.2308E-07	-.8419E+00	.2001E+01	-.1335E-05	.4706E+02	-.5381E+03	.2905E+01

38	.4333E+03	.1301E+02	.1878E+01	.4628E-07	-.7293E+00	.2614E+01	-.2370E-05	.7599E+02	-.8664E+03	.2883E+01
39	.4318E+03	.1101E+02	.1703E+01	.9801E-07	-.8039E+00	.2664E+01	-.1935E-05	.6594E+02	-.7557E+03	.2860E+01
40	.3792E+03	.9510E+01	.1572E+01	.1074E-06	-.8700E+00	.2333E+01	.1794E-05	.4959E+02	-.5688E+03	.2836E+01
41	.3395E+03	.8010E+01	.1441E+01	.9406E-07	-.8502E+00	.2101E+01	.2687E-05	.4446E+02	-.5092E+03	.2811E+01
42	.3848E+03	.6510E+01	.1310E+01	.6562E-07	-.1010E+01	.2406E+01	.3104E-06	.4194E+02	-.4811E+03	.2744E+01
43	.4035E+03	.5509E+01	.1224E+01	.2746E-08	-.1215E+01	.2473E+01	-.2296E-06	.3513E+02	-.4035E+03	.2629E+01
44	.3731E+03	.4509E+01	.1136E+01	-.2451E-07	-.1198E+01	.2266E+01	-.1437E-06	.3257E+02	-.3731E+03	.2490E+01
45	.4806E+03	.3509E+01	.1049E+01	.4295E-07	-.1587E+01	.2914E+01	-.3263E-05	.3139E+02	-.3606E+03	.2299E+01
46	.6176E+03	.3009E+01	.1006E+01	-.1548E-06	-.2309E+01	.3596E+01	.2748E-06	.2667E+02	-.3090E+03	.2162E+01
47	.5628E+03	.2509E+01	.9626E+00	.5563E-07	-.2273E+01	.3169E+01	-.1057E-05	.2435E+02	-.2815E+03	.2060E+01
48	.7564E+03	.2008E+01	.9192E+00	-.8528E-07	-.3211E+01	.4151E+01	-.5648E-06	.2276E+02	-.2650E+03	.1892E+01
49	.1165E+04	.1808E+01	.9024E+00	.3180E-08	-.5490E+01	.5984E+01	-.2312E-07	.1964E+02	-.2337E+03	.1701E+01
50	.1061E+04	.1607E+01	.8855E+00	.9810E-08	-.5417E+01	.5088E+01	.1577E-06	.1798E+02	-.2127E+03	.1484E+01
51	.9835E+03	.1407E+01	.8685E+00	-.1963E-08	-.5361E+01	.4399E+01	.1121E-06	.1675E+02	-.1972E+03	.1303E+01
52	.9238E+03	.1206E+01	.8514E+00	.9790E-08	-.5316E+01	.3846E+01	.3921E-07	.1579E+02	-.1852E+03	.1183E+01
53	.1302E+04	.1006E+01	.8343E+00	-.1398E-08	-.7851E+01	.5037E+01	-.2570E-08	-.5432E+02	-.1310E+03	.1163E+01
54	.2982E+04	.1005E+01	.9348E+00	-.6235E-09	-.1911E+02	.1005E+02	.2186E-09	-.2921E+03	-.2474E+01	.1135E+01
55	.2758E+04	.1004E+01	.1030E+01	-.5092E-08	-.1875E+02	.7682E+01	.8870E-08	-.3528E+03	-.2541E+01	.1103E+01
56	.1901E+04	.1003E+01	.1191E+01	.2320E-07	-.1361E+02	.4104E+01	-.3387E-08	-.4571E+03	-.1833E+01	.1025E+01
57	.1229E+04	.1002E+01	.1511E+01	-.4430E-07	-.9219E+01	.1852E+01	-.5877E-07	-.6578E+03	-.1115E+01	.1117E+01
58	.8434E+03	.1001E+01	.2262E+01	.3816E-07	-.6587E+01	.7981E+00	-.9777E-08	-.1054E+04	-.2831E+00	.9997E+00
59	.5045E+03	.1002E+01	.4012E+01	-.1311E-07	-.3963E+01	.5343E+00	.1100E-08	-.9460E+03	.2371E+00	.9998E+00
60	.3166E+03	.1002E+01	.6011E+01	-.1231E-09	-.2443E+01	.5013E+00	.1489E-09	-.6331E+03	.3158E+00	.1000E+01
61	.2080E+03	.1004E+01	.8011E+01	.1060E-10	-.1534E+01	.5013E+00	.4702E-10	-.4159E+03	.2942E+00	.1000E+01
62	.1431E+03	.1005E+01	.1001E+02	.1790E-12	-.9699E+00	.5011E+00	.1832E-10	-.2861E+03	.2402E+00	.1000E+01
63	.1067E+03	.1007E+01	.1201E+02	-.2138E-13	-.6291E+00	.5009E+00	.1528E-12	-.2132E+03	.1748E+00	.1000E+01
64	.8707E+02	.1008E+01	.1401E+02	-.5701E-13	-.4210E+00	.5007E+00	-.1833E-12	-.1740E+03	.1118E+00	.1000E+01
65	.7717E+02	.1009E+01	.1601E+02	-.8774E-13	-.2978E+00	.5004E+00	-.3717E-12	-.1542E+03	.5714E-01	.1000E+01
66	.6518E+02	.1010E+01	.1801E+02	.9888E-12	-.2269E+00	.4449E+00	.1512E-10	-.1466E+03	.4651E-01	.1000E+01
67	.5311E+02	.1011E+01	.2050E+02	.2014E-11	-.7807E-01	.4005E+00	-.9158E-10	-.1326E+03	.3255E-01	.1000E+01
68	.5674E+02	.1011E+01	.2300E+02	-.2163E-10	.1467E-01	.4400E+00	-.4345E-09	-.1276E+03	.4143E+02	.1000E+01
69	.6488E+02	.2471E+01	.2500E+02	-.3032E-10	.3976E-01	.5046E+00	-.3265E-09	-.1168E+03	.1499E+03	.1000E+01
70	.6952E+02	.5631E+01	.2660E+02	.1568E-09	.3750E-01	.5407E+00	.1713E-10	-.1091E+03	.2805E+03	.1000E+01
71	.6244E+02	.1054E+02	.2814E+02	.2183E-09	.6507E-01	.4782E+00	.3456E-09	-.7799E+02	.3865E+03	.1000E+01
72	.4070E+02	.1801E+02	.2910E+02	-.1161E-08	.7858E-01	.2969E+00	-.2741E-08	-.3766E+02	.3756E+03	.1000E+01
73	.1071E+02	.2900E+02	.2999E+02	0.	.7844E-01	0.	0.	-.9196E+01	.1365E+03	.1000E+01

SECOND INDEX= 34

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9885E+00	.3686E+00	.3002E+00	.4149E-03	.2488E+00	.3998E+01	.8413E+00	.6415E+00	-.3002E+00	-.4149E-03	-.1346E-02
2	.9884E+00	.3686E+00	.3000E+00	.4166E-03	.2488E+00	.3998E+01	.8413E+00	.6412E+00	-.3000E+00	-.4166E-03	-.1348E-02
3	.9902E+00	.3691E+00	.3079E+00	.9325E-03	.2506E+00	.3997E+01	.8449E+00	.6579E+00	-.3079E+00	-.9325E-03	-.1137E-02
4	.9746E+00	.3647E+00	.3204E+00	-.4715E-04	.2490E+00	.4000E+01	.8475E+00	.6861E+00	-.3204E+00	.4714E-04	-.2963E-02
5	.9136E+00	.3442E+00	.3103E+00	-.4476E-02	.2319E+00	.4066E+01	.8377E+00	.6667E+00	-.3104E+00	-.9080E-03	-.1008E-01
6	.8518E+00	.3232E+00	.2975E+00	-.9189E-02	.2144E+00	.4141E+01	.8269E+00	.6417E+00	-.2977E+00	-.1874E-02	-.1728E-01
7	.8301E+00	.3147E+00	.2970E+00	-.1095E-01	.2089E+00	.4188E+01	.8272E+00	.6404E+00	-.2972E+00	-.8303E-03	-.1982E-01
8	.8244E+00	.3105E+00	.2922E+00	-.1133E-01	.2067E+00	.4238E+01	.8302E+00	.6282E+00	-.2925E+00	-.2614E-03	-.2048E-01
9	.8215E+00	.3058E+00	.2714E+00	-.1009E-01	.2029E+00	.4314E+01	.8309E+00	.5800E+00	-.2716E+00	-.6814E-03	-.2082E-01
10	.8249E+00	.3056E+00	.2765E+00	-.1055E-01	.2043E+00	.4337E+01	.8368E+00	.5894E+00	-.2767E+00	-.4211E-03	-.2042E-01
11	.8253E+00	.3024E+00	.2601E+00	-.9929E-02	.2022E+00	.4404E+01	.8393E+00	.5515E+00	-.2603E+00	-.3904E-03	-.2037E-01
12	.8220E+00	.2974E+00	.2368E+00	-.9354E-02	.1985E+00	.4490E+01	.8411E+00	.4989E+00	-.2370E+00	-.4021E-04	-.2076E-01
13	.8205E+00	.2943E+00	.2428E+00	-.1044E-01	.1987E+00	.4546E+01	.8499E+00	.5095E+00	-.2432E+00	.8202E-03	-.2093E-01
14	.8212E+00	.2902E+00	.2371E+00	-.9618E-02	.1980E+00	.4642E+01	.8603E+00	.4937E+00	-.2373E+00	.2178E-03	-.2085E-01
15	.8241E+00	.2848E+00	.2160E+00	-.6997E-02	.1963E+00	.4782E+01	.8718E+00	.4446E+00	-.2162E+00	.5237E-03	-.2052E-01
16	.7908E+00	.2700E+00	.1919E+00	-.6756E-02	.1862E+00	.4945E+01	.8751E+00	.3927E+00	-.1921E+00	.9763E-03	-.2440E-01
17	.7099E+00	.2434E+00	.1458E+00	-.8121E-02	.1643E+00	.5133E+01	.8606E+00	.2992E+00	-.1460E+00	-.2499E-03	-.3383E-01
18	.6399E+00	.2212E+00	.1028E+00	-.7941E-02	.1463E+00	.5290E+01	.8461E+00	.2122E+00	-.1031E+00	-.3563E-03	-.4199E-01
19	.6022E+00	.2088E+00	.7715E-01	-.6762E-02	.1369E+00	.5395E+01	.8401E+00	.1596E+00	-.7737E-01	-.3810E-03	-.4639E-01
20	.5927E+00	.2051E+00	.6850E-01	-.6035E-02	.1345E+00	.5446E+01	.8410E+00	.1416E+00	-.6838E-01	-.5843E-03	-.4750E-01
21	.6037E+00	.2083E+00	.6203E-01	-.5525E-02	.1369E+00	.5428E+01	.8428E+00	.1280E+00	-.6212E-01	-.3512E-03	-.4621E-01
22	.6361E+00	.2186E+00	.5663E-01	-.4719E-02	.1441E+00	.5347E+01	.8450E+00	.1166E+00	-.5646E-01	-.5971E-03	-.4244E-01
23	.6991E+00	.2380E+00	.6009E-01	-.4111E-02	.1585E+00	.5217E+01	.8541E+00	.1230E+00	-.5971E-01	-.6604E-03	-.3509E-01
24	.7920E+00	.2660E+00	.9113E-01	-.4218E-02	.1805E+00	.5056E+01	.8689E+00	.1851E+00	-.9115E-01	-.9134E-04	-.2426E-01
25	.8928E+00	.2987E+00	.1634E+00	-.3987E-02	.2077E+00	.4847E+01	.8855E+00	.3309E+00	-.1638E+00	.4075E-03	-.1250E-01
26	.9760E+00	.3284E+00	.2149E+00	-.1796E-02	.2321E+00	.4639E+01	.8942E+00	.4363E+00	-.2136E+00	-.2180E-02	-.2795E-02

27	.1079E+01	.3650E+00	.2726E+00	.3249E-02	.2645E+00	.4424E+01	.9095E+00	.5550E+00	-.2725E+00	-.3332E-03	.9191E-02
28	.1148E+01	.3905E+00	.2965E+00	.8749E-02	.2859E+00	.4283E+01	.9149E+00	.6055E+00	-.2971E+00	.9972E-03	.1731E-01
29	.1145E+01	.3923E+00	.2852E+00	.8185E-02	.2831E+00	.4242E+01	.9035E+00	.5846E+00	-.2852E+00	-.4145E-03	.1687E-01
30	.1151E+01	.3943E+00	.2618E+00	.7480E-02	.2808E+00	.4236E+01	.8949E+00	.5365E+00	-.2617E+00	-.1356E-02	.1763E-01
31	.1231E+01	.4161E+00	.2517E+00	.1068E-01	.2982E+00	.4200E+01	.9023E+00	.5126E+00	-.2519E+00	-.6775E-04	.2688E-01
32	.1334E+01	.4454E+00	.2429E+00	.1462E-01	.3216E+00	.4140E+01	.9104E+00	.4922E+00	-.2433E+00	-.1498E-03	.3898E-01
33	.1433E+01	.4735E+00	.2172E+00	.1609E-01	.3408E+00	.4081E+01	.9107E+00	.4381E+00	-.2179E+00	.2923E-03	.5046E-01
34	.1489E+01	.4902E+00	.1360E+00	.1151E-01	.3431E+00	.4039E+01	.8935E+00	.2742E+00	-.1366E+00	.2711E-04	.5698E-01
35	.1504E+01	.5008E+00	.8636E-01	.7576E-02	.3425E+00	.3961E+01	.8761E+00	.1751E+00	-.8690E-01	.2321E-03	.5882E-01
36	.1500E+01	.5071E+00	.6139E-01	.5522E-02	.3402E+00	.3882E+01	.8603E+00	.1254E+00	-.6100E-01	-.6762E-03	.5836E-01
37	.1506E+01	.5149E+00	.4546E-01	.4053E-02	.3408E+00	.3815E+01	.8493E+00	.9339E-01	-.4536E-01	-.2872E-03	.5904E-01
38	.1512E+01	.5210E+00	.5355E-01	.4561E-02	.3426E+00	.3768E+01	.8434E+00	.1104E+00	-.5443E-01	.7050E-03	.5976E-01
39	.1512E+01	.5258E+00	.4569E-01	.3670E-02	.3421E+00	.3718E+01	.8348E+00	.9462E-01	-.4738E-01	.1573E-02	.5965E-01
40	.1517E+01	.5324E+00	.3933E-01	.2881E-02	.3431E+00	.3666E+01	.8269E+00	.8177E-01	-.4142E-01	.2068E-02	.6029E-01
41	.1531E+01	.5398E+00	.4402E-01	.3533E-02	.3463E+00	.3629E+01	.8233E+00	.9179E-01	-.4518E-01	.1067E-02	.6188E-01
42	.1550E+01	.5477E+00	.6115E-01	.5129E-02	.3516E+00	.3602E+01	.8233E+00	.1276E+00	-.6203E-01	.7079E-03	.6420E-01
43	.1554E+01	.5523E+00	.7787E-01	.6620E-02	.3553E+00	.3567E+01	.8197E+00	.1631E+00	-.7860E-01	.4616E-03	.6457E-01
44	.1543E+01	.5559E+00	.1004E+00	.8335E-02	.3526E+00	.3510E+01	.8116E+00	.2118E+00	-.1018E+00	.1136E-02	.6328E-01
45	.1541E+01	.5695E+00	.2007E+00	.1781E-01	.3658E+00	.3390E+01	.8133E+00	.4287E+00	-.2009E+00	-.7015E-03	.6313E-01
46	.1536E+01	.5984E+00	.3218E+00	.2825E-01	.3950E+00	.3151E+01	.8180E+00	.7058E+00	-.3225E+00	-.5946E-03	.6249E-01
47	.1511E+01	.5834E+00	.4007E+00	.3483E-01	.4143E+00	.3214E+01	.8658E+00	.8746E+00	-.4022E+00	-.1083E-04	.5965E-01
48	.1508E+01	.6241E+00	.4761E+00	.4211E-01	.4509E+00	.2919E+01	.8629E+00	.1076E+01	-.4767E+00	-.1553E-02	.5930E-01
49	.1513E+01	.7000E+00	.5785E+00	.5292E-01	.5244E+00	.2492E+01	.8659E+00	.1383E+01	-.5767E+00	-.5368E-02	.5978E-01
50	.1506E+01	.8183E+00	.7088E+00	.6351E-01	.6608E+00	.1994E+01	.8931E+00	.1836E+01	-.7088E+00	-.3758E-02	.5900E-01
51	.1517E+01	.9821E+00	.8239E+00	.7597E-01	.8631E+00	.1556E+01	.9339E+00	.2330E+01	-.8226E+00	-.6825E-02	.6030E-01
52	.1556E+01	.1188E+01	.8992E+00	.9807E-01	.1104E+01	.1223E+01	.9607E+00	.2766E+01	-.8868E+00	-.2680E-01	.6485E-01
53	.1558E+01	.1345E+01	.9571E+00	.7618E-01	.1312E+01	.1029E+01	.9904E+00	.3123E+01	-.7769E+00	-.4431E+00	.6510E-01
54	.1526E+01	.1340E+01	.9708E+00	.8077E-01	.1329E+01	.1013E+01	.1004E+01	.3196E+01	-.1753E+01	-.2071E+01	.6129E-01
55	.1480E+01	.1337E+01	.9714E+00	.8147E-01	.1318E+01	.9853E+00	.9956E+00	.3243E+01	-.2272E+01	-.2543E+01	.5601E-01
56	.1349E+01	.1318E+01	.9782E+00	.7979E-01	.1287E+01	.9168E+00	.9808E+00	.3395E+01	-.3149E+01	-.3372E+01	.4070E-01
57	.1127E+01	.1011E+01	.9912E+00	.7236E-03	.1023E+01	.1110E+01	.1021E+01	.3286E+01	-.4924E+01	-.5023E+01	.1481E-01
58	.9992E+00	.9991E+00	.1000E+01	-.2444E-03	.9993E+00	.1000E+01	.1000E+01	.3500E+01	-.8283E+01	-.8343E+01	-.9195E-04
59	.9998E+00	.1000E+01	.1000E+01	-.1990E-05	.1000E+01	.9998E+00	.1000E+01	.3500E+01	-.7460E+01	-.7527E+01	-.2079E-04
60	.1000E+01	.1000E+01	.1000E+01	.4266E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.4898E+01	-.4999E+01	.1596E-06
61	.1000E+01	.1000E+01	.1000E+01	.1013E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.3073E+01	-.3232E+01	-.2268E-07
62	.1000E+01	.1000E+01	.1000E+01	.3700E-07	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1942E+01	-.2184E+01	-.6963E-08
63	.1000E+01	.1000E+01	.1000E+01	.1065E-07	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1259E+01	-.1608E+01	-.9863E-09
64	.1000E+01	.1000E+01	.1000E+01	.9090E-08	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.8422E+00	-.1308E+01	-.6612E-09
65	.1000E+01	.1000E+01	.1000E+01	.5108E-08	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5960E+00	-.1164E+01	.2784E-08
66	.1000E+01	.1000E+01	.1000E+01	.5706E-08	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5109E+00	-.1123E+01	-.1620E-07
67	.1000E+01	.1000E+01	.1000E+01	.4049E-07	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1952E+00	-.1019E+01	-.3014E-09
68	.1000E+01	.1000E+01	.1000E+01	-.1498E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.3465E-01	-.9899E+00	.6986E-06
69	.1000E+01	.1000E+01	.1000E+01	-.3494E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1164E+00	-.9110E+00	.3780E-05
70	.1000E+01	.1000E+01	.1000E+01	.1362E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1621E+00	-.8510E+00	.1049E-04
71	.1000E+01	.1000E+01	.1000E+01	.3235E-04	.1000E+01	.9999E+00	.1000E+01	.3500E+01	.4105E+00	-.6031E+00	.1601E-04
72	.1000E+01	.1000E+01	.1000E+01	.2428E-04	.1000E+01	.9999E+00	.1000E+01	.3500E+01	.7283E+00	-.2848E+00	.1715E-04
73	.1000E+01	.1000E+01	.1000E+01	.2390E-04	.1000E+01	.9999E+00	.1000E+01	.3500E+01	.1002E+01	-.6773E-01	.1748E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.6264E+02	.9000E+02	.5119E-02	0.	-.2500E+00	0.	0.	.1075E-10	-.2506E+03	.2682E+01
2	.6264E+02	.8600E+02	.5119E-02	-.3614E-06	-.2500E+00	.1994E-08	-.3287E-05	.3539E-11	-.2506E+03	.2682E+01
3	.6264E+02	.8200E+02	.5119E-02	-.2672E-06	-.2500E+00	.7634E-08	.3188E-07	-.1391E-13	-.2506E+03	.2683E+01
4	.6264E+02	.7800E+02	.5119E-02	-.1267E-06	-.2500E+00	.2998E-07	-.1082E-05	.5477E-13	-.2506E+03	.2672E+01
5	.6264E+02	.7400E+02	.5119E-02	-.1045E-07	-.2500E+00	.1148E-06	-.3072E-06	-.4347E+01	-.2506E+03	.2654E+01
6	.6287E+02	.7000E+02	.1439E+00	-.6203E-08	-.2500E+00	.4644E-06	-.4093E-05	-.9352E+01	-.2515E+03	.2636E+01
7	.6314E+02	.6600E+02	.3026E+00	.1408E-07	-.2500E+00	.1983E-05	-.2512E-06	-.1002E+02	-.2526E+03	.2638E+01
8	.6343E+02	.6200E+02	.4613E+00	.1136E-07	-.2500E+00	.8897E-05	-.2756E-07	-.1007E+02	-.2537E+03	.2655E+01
9	.6373E+02	.5800E+02	.6200E+00	-.8401E-07	-.2500E+00	.4209E-04	-.6184E-06	-.1011E+02	-.2549E+03	.2686E+01
10	.6404E+02	.5400E+02	.7787E+00	-.2290E-06	-.2500E+00	.2108E-03	-.3869E-05	-.1016E+02	-.2562E+03	.2699E+01
11	.6435E+02	.5000E+02	.9374E+00	-.2895E-06	-.2500E+00	.1127E-02	-.3144E-05	-.1021E+02	-.2574E+03	.2730E+01
12	.6467E+02	.4600E+02	.1096E+01	-.1085E-06	-.2498E+00	.6603E-02	.6175E-05	-.1026E+02	-.2587E+03	.2764E+01
13	.7517E+02	.4200E+02	.1255E+01	.1201E-06	-.2835E+00	.5591E-01	.3157E-05	-.1044E+02	-.2631E+03	.2787E+01
14	.8717E+02	.3900E+02	.1374E+01	.1408E-06	-.3322E+00	.2873E-01	.2617E-05	-.1037E+02	-.2615E+03	.2830E+01
15	.1088E+03	.3600E+02	.1493E+01	.2267E-07	-.3963E+00	.1228E+00	-.5452E-06	-.8177E+01	-.2720E+03	.2893E+01
16	.1315E+03	.3400E+02	.1524E+01	-.4143E-07	-.4986E+00	.3989E-01	-.9190E-06	-.7921E+01	-.2630E+03	.2929E+01

17	.1314E+03	.3200E+02	.1613E+01	-.4592E-07	-.4985E+00	.2590E-01	-.7375E-06	-.1509E+02	-.2629E+03	.2917E+01
18	.1316E+03	.3000E+02	.1754E+01	-.3418E-07	-.4964E+00	.4694E-01	-.5472E-06	-.2124E+02	-.2632E+03	.2893E+01
19	.1344E+03	.2800E+02	.1936E+01	-.2619E-07	-.4871E+00	.1433E+00	-.4193E-06	-.2484E+02	-.2685E+03	.2884E+01
20	.2331E+03	.2600E+02	.2123E+01	-.1845E-07	-.6057E+00	.6480E+00	-.2178E-06	-.3304E+02	-.3495E+03	.2890E+01
21	.2955E+03	.2500E+02	.2219E+01	-.1281E-07	-.9434E+00	.5995E+00	-.1668E-06	-.2782E+02	-.2956E+03	.2898E+01
22	.3279E+03	.2400E+02	.2312E+01	-.7863E-08	-.9243E+00	.8331E+00	-.1121E-06	-.3009E+02	-.3277E+03	.2910E+01
23	.4346E+03	.2300E+02	.2403E+01	-.6408E-08	-.8969E+00	.1382E+01	-.7939E-07	-.3261E+02	-.4343E+03	.2938E+01
24	.8753E+03	.2200E+02	.2462E+01	-.2677E-08	-.1188E+01	.3115E+01	.4938E-06	-.3064E+02	-.6565E+03	.2977E+01
25	.1237E+04	.2150E+02	.2473E+01	-.3006E-08	-.2570E+01	.3918E+01	.9489E-07	-.1069E+02	-.4650E+03	.2989E+01
26	.1288E+04	.2125E+02	.2479E+01	.1422E-08	-.3938E+01	.2866E+01	-.4076E-07	-.5383E+01	-.3231E+03	.2972E+01
27	.1211E+04	.2100E+02	.2481E+01	.6605E-08	-.4015E+01	.2172E+01	.1038E-06	.3292E+01	-.3034E+03	.2956E+01
28	.1164E+04	.2075E+02	.2474E+01	.1190E-07	-.4047E+01	.1673E+01	.9947E-07	.9494E+01	-.2915E+03	.2941E+01
29	.1118E+04	.2050E+02	.2465E+01	.1546E-07	-.4024E+01	.1212E+01	.1031E-06	.7651E+01	-.2801E+03	.2918E+01
30	.1078E+04	.2025E+02	.2460E+01	.2201E-07	-.3999E+01	.6665E+00	.1710E-06	.6357E+01	-.2707E+03	.2919E+01
31	.7071E+03	.2000E+02	.2453E+01	.3636E-07	-.2657E+01	-.3154E+00	.3164E-06	.1116E+02	-.2648E+03	.2958E+01
32	.5855E+03	.1950E+02	.2428E+01	.4046E-07	-.2053E+01	.7988E+00	.4410E-06	.1740E+02	-.2920E+03	.2996E+01
33	.4023E+03	.1900E+02	.2394E+01	.1881E-07	-.1383E+01	.6249E+00	.2207E-06	.2268E+02	-.3012E+03	.3026E+01
34	.5886E+03	.1800E+02	.2316E+01	-.2152E-07	-.1164E+01	.1925E+01	-.6495E-06	.4981E+02	-.5879E+03	.3037E+01
35	.6831E+03	.1700E+02	.2224E+01	-.2774E-07	-.1208E+01	.2337E+01	-.3324E-06	.6062E+02	-.6830E+03	.3004E+01
36	.7541E+03	.1600E+02	.2138E+01	-.1614E-07	-.1229E+01	.2662E+01	-.2049E-06	.6498E+02	-.7540E+03	.2959E+01
37	.5534E+03	.1500E+02	.2052E+01	-.1921E-07	-.8414E+00	.2002E+01	-.5750E-07	.7240E+02	-.8300E+03	.2925E+01
38	.6771E+03	.1300E+02	.1876E+01	.1558E-07	-.7291E+00	.2615E+01	.1084E-06	.1186E+03	-.1354E+04	.2903E+01
39	.6826E+03	.1100E+02	.1702E+01	.2519E-07	-.8043E+00	.2665E+01	.1489E-06	.1044E+03	-.1194E+04	.2875E+01
40	.6032E+03	.9505E+01	.1571E+01	.1742E-07	-.8704E+00	.2333E+01	.6485E-06	.7902E+02	-.9048E+03	.2849E+01
41	.5432E+03	.8005E+01	.1440E+01	.1829E-07	-.8502E+00	.2101E+01	.1499E-06	.7121E+02	-.8149E+03	.2835E+01
42	.6196E+03	.6505E+01	.1308E+01	.7898E-08	-.1010E+01	.2406E+01	.9629E-07	.6765E+02	-.7746E+03	.2831E+01
43	.6511E+03	.5505E+01	.1221E+01	-.7291E-08	-.1216E+01	.2473E+01	-.2172E-06	.5683E+02	-.6512E+03	.2813E+01
44	.6033E+03	.4505E+01	.1134E+01	-.5393E-07	-.1198E+01	.2265E+01	.2236E-06	.5273E+02	-.6033E+03	.2775E+01
45	.7793E+03	.3505E+01	.1046E+01	.3077E-07	-.1588E+01	.2915E+01	.1928E-05	.5105E+02	-.5846E+03	.2706E+01
46	.1002E+04	.3004E+01	.1003E+01	-.7094E-07	-.2312E+01	.3600E+01	.1376E-06	.4357E+02	-.5013E+03	.2566E+01
47	.9130E+03	.2504E+01	.9595E+00	.1237E-06	-.2275E+01	.3170E+01	.8362E-06	.3968E+02	-.4566E+03	.2591E+01
48	.1229E+04	.2004E+01	.9159E+00	-.5848E-07	-.3216E+01	.4156E+01	-.2582E-06	.3729E+02	-.4303E+03	.2417E+01
49	.1898E+04	.1804E+01	.8988E+00	-.2241E-07	-.5508E+01	.6002E+01	-.9344E-07	.3260E+02	-.3801E+03	.2161E+01
50	.1728E+04	.1604E+01	.8816E+00	-.2359E-07	-.5432E+01	.5099E+01	-.4957E-06	.2978E+02	-.3461E+03	.1840E+01
51	.1605E+04	.1403E+01	.8643E+00	-.5186E-07	-.5374E+01	.4407E+01	-.6902E-06	.2772E+02	-.3214E+03	.1545E+01
52	.1511E+04	.1203E+01	.8470E+00	-.4782E-07	-.5327E+01	.3852E+01	.1053E-06	.2614E+02	-.3025E+03	.1310E+01
53	.2139E+04	.1003E+01	.8297E+00	-.3595E-08	-.7880E+01	.5052E+01	-.1503E-07	-.8872E+02	-.2146E+03	.1158E+01
54	.4950E+04	.1002E+01	.9300E+00	-.3529E-09	-.1933E+02	.1016E+02	-.5978E-08	-.4834E+03	-.2057E+01	.1138E+01
55	.4593E+04	.1002E+01	.1025E+01	-.2625E-08	-.1898E+02	.7766E+01	.1087E-07	-.5863E+03	-.2111E+01	.1107E+01
56	.3167E+04	.1002E+01	.1185E+01	.2885E-07	-.1374E+02	.4135E+01	.8496E-07	-.7608E+03	-.1517E+01	.1024E+01
57	.2049E+04	.1001E+01	.1505E+01	-.6369E-07	-.9284E+01	.1861E+01	-.2358E-06	-.1096E+04	-.9197E+00	.1115E+01
58	.1408E+04	.1001E+01	.2256E+01	.2480E-07	-.6625E+01	.7990E+00	-.7307E-08	-.1760E+04	-.2335E+00	.1000E+01
59	.8403E+03	.1001E+01	.4006E+01	-.8326E-08	-.3979E+01	.5338E+00	.2343E-08	-.1576E+04	.1939E+00	.9998E+00
60	.5265E+03	.1001E+01	.6006E+01	-.8168E-10	-.2449E+01	.5006E+00	-.1711E-09	-.1053E+04	.2578E+00	.1000E+01
61	.3456E+03	.1002E+01	.8005E+01	.5718E-11	-.1537E+01	.5006E+00	-.7816E-10	-.6911E+03	.2397E+00	.1000E+01
62	.2378E+03	.1003E+01	.1000E+02	-.7189E-12	-.9710E+00	.5005E+00	-.2665E-10	-.4756E+03	.1953E+00	.1000E+01
63	.1775E+03	.1003E+01	.1200E+02	-.2421E-12	-.6297E+00	.5004E+00	-.9450E-12	-.3549E+03	.1417E+00	.1000E+01
64	.1452E+03	.1004E+01	.1400E+02	-.9797E-13	-.4213E+00	.5003E+00	-.4815E-12	-.2904E+03	.9006E-01	.1000E+01
65	.1291E+03	.1005E+01	.1600E+02	-.4673E-13	-.2981E+00	.5002E+00	-.2291E-12	-.2582E+03	.4518E-01	.1000E+01
66	.1096E+03	.1005E+01	.1800E+02	.2701E-12	-.2272E+00	.4446E+00	.1025E-10	-.2464E+03	.3653E-01	.1000E+01
67	.8959E+02	.1005E+01	.2050E+02	.2343E-11	-.7814E-01	.4002E+00	-.6785E-10	-.2239E+03	.2524E-01	.1000E+01
68	.9620E+02	.1005E+01	.2300E+02	-.1156E-10	.1465E-01	.4398E+00	-.2802E-09	-.2164E+03	.7023E+02	.1000E+01
69	.1103E+03	.2465E+01	.2500E+02	-.4070E-10	.3974E-01	.5046E+00	.1924E-09	-.1985E+03	.2547E+03	.1000E+01
70	.1181E+03	.5625E+01	.2660E+02	.2475E-10	.3743E-01	.5408E+00	.2733E-08	-.1853E+03	.4764E+03	.1000E+01
71	.1057E+03	.1054E+02	.2814E+02	.5590E-09	.6500E-01	.4783E+00	.5507E-10	-.1320E+03	.6541E+03	.1000E+01
72	.6822E+02	.1801E+02	.2910E+02	.4923E-09	.7848E-01	.2969E+00	-.3166E-09	-.6328E+02	.6298E+03	.1000E+01
73	.1776E+02	.2900E+02	.2999E+02	0.	.7839E-01	0.	0.	-.1535E+02	.2265E+03	.1000E+01

SECOND INDEX= 35

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9824E+00	.3591E+00	.1850E-01	-.7314E-02	.2219E+00	.4121E+01	.7933E+00	.4210E-01	-.1850E-01	.7314E-02	-.2055E-02
2	.9824E+00	.3591E+00	.1867E-01	-.7333E-02	.2219E+00	.4122E+01	.7933E+00	.4244E-01	-.1867E-01	.7333E-02	-.2049E-02
3	.9819E+00	.3577E+00	.1962E-01	-.6093E-02	.2218E+00	.4142E+01	.7961E+00	.4339E-01	-.1962E-01	.6093E-02	-.2108E-02
4	.9688E+00	.3512E+00	.3119E-01	-.4269E-02	.2190E+00	.4192E+01	.8002E+00	.6635E-01	-.3119E-01	.4269E-02	-.3643E-02
5	.9084E+00	.3320E+00	.3446E-01	-.3754E-02	.2054E+00	.4253E+01	.7939E+00	.7335E-01	-.3447E-01	.3156E-02	-.1068E-01

6	.8465E+00	.3124E+00	.3501E-01	-.3656E-02	.1914E+00	.4315E+01	.7862E+00	.7484E-01	-.3503E-01	.2354E-02	-.1791E-01
7	.8257E+00	.3046E+00	.3964E-01	-.3756E-02	.1868E+00	.4373E+01	.7884E+00	.8455E-01	-.3967E-01	.2183E-02	-.2033E-01
8	.8226E+00	.3010E+00	.4235E-01	-.4093E-02	.1861E+00	.4418E+01	.7935E+00	.9008E-01	-.4238E-01	.2412E-02	-.2069E-01
9	.8177E+00	.2984E+00	.2918E-01	-.6460E-02	.1848E+00	.4445E+01	.7949E+00	.6320E-01	-.2921E-01	.5302E-02	-.2127E-01
10	.8207E+00	.2976E+00	.2802E-01	-.5700E-02	.1855E+00	.4478E+01	.7999E+00	.6026E-01	-.2804E-01	.4589E-02	-.2091E-01
11	.8214E+00	.2959E+00	.2756E-01	-.5948E-02	.1856E+00	.4518E+01	.8052E+00	.5922E-01	-.2760E-01	.4854E-02	-.2083E-01
12	.8212E+00	.2932E+00	.2889E-01	-.5436E-02	.1856E+00	.4576E+01	.8125E+00	.6148E-01	-.2903E-01	.4286E-02	-.2085E-01
13	.8254E+00	.2907E+00	.3871E-01	-.4544E-02	.1867E+00	.4654E+01	.8241E+00	.8095E-01	-.3933E-01	.3043E-02	-.2036E-01
14	.8258E+00	.2865E+00	.3887E-01	-.3783E-02	.1868E+00	.4753E+01	.8366E+00	.8050E-01	-.3909E-01	.2242E-02	-.2031E-01
15	.8244E+00	.2810E+00	.3349E-01	-.3454E-02	.1863E+00	.4874E+01	.8511E+00	.6880E-01	-.3426E-01	.2539E-02	-.2048E-01
16	.7902E+00	.2670E+00	.3220E-01	-.2876E-02	.1786E+00	.5019E+01	.8586E+00	.6578E-01	-.3237E-01	.1909E-02	-.2447E-01
17	.7128E+00	.2428E+00	.2974E-01	.1062E-03	.1611E+00	.5173E+01	.8517E+00	.6074E-01	-.2969E-01	-.1811E-02	-.3349E-01
18	.6440E+00	.2216E+00	.2653E-01	.2899E-02	.1455E+00	.5310E+01	.8428E+00	.5480E-01	-.2615E-01	-.5025E-02	-.4152E-01
19	.6054E+00	.2093E+00	.2372E-01	.3530E-02	.1367E+00	.5408E+01	.8389E+00	.4934E-01	-.2217E-01	-.6913E-02	-.4603E-01
20	.5941E+00	.2052E+00	.2293E-01	.2075E-02	.1342E+00	.5454E+01	.8395E+00	.4737E-01	-.1888E-01	-.5652E-02	-.4733E-01
21	.6051E+00	.2085E+00	.2074E-01	.1914E-02	.1367E+00	.5433E+01	.8415E+00	.4279E-01	-.1850E-01	-.4320E-02	-.4605E-01
22	.6372E+00	.2186E+00	.1922E-01	.1449E-02	.1439E+00	.5354E+01	.8450E+00	.3951E-01	-.1660E-01	-.4007E-02	-.4231E-01
23	.7002E+00	.2378E+00	.2117E-01	.4768E-03	.1581E+00	.5229E+01	.8537E+00	.4320E-01	-.1835E-01	-.3425E-02	-.3496E-01
24	.7942E+00	.2659E+00	.3137E-01	-.2930E-03	.1795E+00	.5074E+01	.8665E+00	.6352E-01	-.2865E-01	-.2936E-02	-.2400E-01
25	.8936E+00	.2963E+00	.4507E-01	-.1669E-02	.2022E+00	.4905E+01	.8755E+00	.9090E-01	-.4613E-01	.1260E-02	-.1241E-01
26	.9729E+00	.3228E+00	.4265E-01	-.1716E-02	.2201E+00	.4738E+01	.8750E+00	.8605E-01	-.4343E-01	.1331E-02	-.3155E-02
27	.1078E+01	.3551E+00	.5316E-01	-.1552E-02	.2442E+00	.4595E+01	.8822E+00	.1068E+00	-.5434E-01	.2475E-02	.9146E-02
28	.1147E+01	.3775E+00	.5034E-01	-.7827E-03	.2597E+00	.4487E+01	.8827E+00	.1011E+00	-.5139E-01	.2684E-02	.1716E-01
29	.1144E+01	.3811E+00	.4436E-01	-.3159E-03	.2588E+00	.4415E+01	.8714E+00	.8962E-01	-.4485E-01	.1627E-02	.1676E-01
30	.1151E+01	.3863E+00	.3408E-01	-.2222E-03	.2601E+00	.4359E+01	.8644E+00	.6910E-01	-.3426E-01	.1051E-02	.1759E-01
31	.1230E+01	.4087E+00	.3050E-01	-.3996E-03	.2781E+00	.4307E+01	.8734E+00	.6153E-01	-.3033E-01	.1682E-02	.2688E-01
32	.1336E+01	.4378E+00	.3386E-01	.5981E-03	.3019E+00	.4245E+01	.8850E+00	.6787E-01	-.3448E-01	.1547E-02	.3913E-01
33	.1434E+01	.4667E+00	.3539E-01	.1811E-02	.3241E+00	.4167E+01	.8914E+00	.7077E-01	-.3588E-01	.9332E-03	.5058E-01
34	.1489E+01	.4869E+00	.3193E-01	.3724E-02	.3365E+00	.4078E+01	.8871E+00	.6435E-01	-.3003E-01	-.2344E-02	.5703E-01
35	.1509E+01	.5003E+00	.2521E-01	.4984E-02	.3409E+00	.3980E+01	.8749E+00	.5178E-01	-.1885E-01	-.7240E-02	.5939E-01
36	.1503E+01	.5072E+00	.1957E-01	.4136E-02	.3395E+00	.3889E+01	.8595E+00	.4066E-01	-.1308E-01	-.7193E-02	.5870E-01
37	.1507E+01	.5147E+00	.1545E-01	.2913E-02	.3403E+00	.3819E+01	.8489E+00	.3216E-01	-.1078E-01	-.5109E-02	.5913E-01
38	.1516E+01	.5219E+00	.1860E-01	.1232E-02	.3424E+00	.3768E+01	.8423E+00	.3828E-01	-.2075E-01	.2152E-02	.6020E-01
39	.1519E+01	.5278E+00	.1565E-01	.5554E-03	.3429E+00	.3716E+01	.8342E+00	.3231E-01	-.1952E-01	.3965E-02	.6049E-01
40	.1525E+01	.5347E+00	.1278E-01	-.2545E-03	.3443E+00	.3664E+01	.8268E+00	.2648E-01	-.1764E-01	.5123E-02	.6122E-01
41	.1536E+01	.5412E+00	.1387E-01	.3155E-03	.3469E+00	.3629E+01	.8230E+00	.2883E-01	-.1676E-01	.3051E-02	.6256E-01
42	.1555E+01	.5482E+00	.1709E-01	.2867E-02	.3512E+00	.3608E+01	.8225E+00	.3601E-01	-.1301E-01	-.4476E-02	.6476E-01
43	.1561E+01	.5521E+00	.1876E-01	.4387E-02	.3524E+00	.3585E+01	.8196E+00	.4011E-01	-.1201E-01	-.7572E-02	.6537E-01
44	.1556E+01	.5563E+00	.1766E-01	.4977E-02	.3514E+00	.3537E+01	.8110E+00	.3840E-01	-.9923E-02	-.8794E-02	.6483E-01
45	.1539E+01	.5619E+00	.2696E-01	.2041E-02	.3477E+00	.3448E+01	.7943E+00	.5718E-01	-.2776E-01	.7902E-03	.6284E-01
46	.1540E+01	.5808E+00	.4367E-01	.2565E-02	.3485E+00	.3296E+01	.7700E+00	.9401E-01	-.4609E-01	.2667E-02	.6300E-01
47	.1543E+01	.5514E+00	.7884E-01	.2747E-02	.3509E+00	.3550E+01	.8154E+00	.1651E+00	-.8570E-01	.8049E-02	.6329E-01
48	.1550E+01	.5693E+00	.1095E+00	.4848E-02	.3553E+00	.3412E+01	.7979E+00	.2324E+00	-.1168E+00	.8639E-02	.6418E-01
49	.1559E+01	.6005E+00	.2302E+00	.2062E-01	.3767E+00	.3183E+01	.7904E+00	.5020E+00	-.2303E+00	.1022E-02	.6519E-01
50	.1548E+01	.6483E+00	.3803E+00	.3483E-01	.4226E+00	.2839E+01	.7956E+00	.8650E+00	-.3799E+00	-.2636E-02	.6389E-01
51	.1542E+01	.7121E+00	.5294E+00	.5260E-01	.5041E+00	.2480E+01	.8286E+00	.1265E+01	-.5256E+00	-.9091E-02	.6320E-01
52	.1570E+01	.8845E+00	.7057E+00	.8422E-01	.7003E+00	.1864E+01	.8732E+00	.1867E+01	-.6908E+00	-.2996E-01	.6645E-01
53	.1570E+01	.1359E+01	.9589E+00	.7300E-01	.1327E+01	.1022E+01	.9917E+00	.3131E+01	-.7804E+00	-.4404E+00	.6647E-01
54	.1526E+01	.1339E+01	.9703E+00	.8087E-01	.1327E+01	.1014E+01	.1003E+01	.3192E+01	-.1761E+01	-.2081E+01	.6134E-01
55	.1486E+01	.1336E+01	.9712E+00	.8117E-01	.1318E+01	.9899E+00	.9968E+00	.3235E+01	-.2286E+01	-.2557E+01	.5665E-01
56	.1375E+01	.1324E+01	.9776E+00	.8077E-01	.1297E+01	.9282E+00	.9844E+00	.3369E+01	-.3162E+01	-.3386E+01	.4377E-01
57	.1097E+01	.1008E+01	.9923E+00	.2758E-03	.1016E+01	.1084E+01	.1015E+01	.3330E+01	-.4950E+01	-.5049E+01	.1132E-01
58	.9998E+00	.9997E+00	.1000E+01	-.9294E-04	.9998E+00	.1000E+01	.1000E+01	.3500E+01	-.8310E+01	-.8370E+01	-.2480E-04
59	.9999E+00	.1000E+01	.1000E+01	.1079E-05	.1000E+01	.9999E+00	.1000E+01	.3500E+01	-.7478E+01	-.7545E+01	-.1194E-04
60	.1000E+01	.1000E+01	.1000E+01	-.4712E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.4906E+01	-.5007E+01	.4838E-06
61	.1000E+01	.1000E+01	.1000E+01	-.1567E-05	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.3076E+01	-.3235E+01	.5349E-06
62	.1000E+01	.1000E+01	.1000E+01	-.9805E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1943E+01	-.2186E+01	.2942E-06
63	.1000E+01	.1000E+01	.1000E+01	-.4751E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1260E+01	-.1609E+01	.1153E-06
64	.1000E+01	.1000E+01	.1000E+01	-.2574E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.8428E+00	-.1308E+01	.2805E-07
65	.1000E+01	.1000E+01	.1000E+01	-.1670E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5964E+00	-.1164E+01	-.8160E-08
66	.1000E+01	.1000E+01	.1000E+01	-.1234E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5113E+00	-.1123E+01	-.1761E-07
67	.1000E+01	.1000E+01	.1000E+01	-.2897E-07	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1954E+00	-.1019E+01	-.8935E-07
68	.1000E+01	.1000E+01	.1000E+01	.1188E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.3463E-01	-.9899E+00	.5014E-06
69	.1000E+01	.1000E+01	.1000E+01	-.7296E-06	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1163E+00	-.9111E+00	.4863E-05
70	.1000E+01	.1000E+01	.1000E+01	.1075E-04	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1619E+00	-.8511E+00	.1998E-04

71	.1000E+01	.1000E+01	.1000E+01	.8239E-04	.1000E+01	.9999E+00	.1000E+01	.3500E+01	.4104E+00	-.6032E+00	.4751E-04
72	.1001E+01	.1001E+01	.1000E+01	.1324E-03	.1001E+01	.9997E+00	.1000E+01	.3500E+01	.7281E+00	-.2850E+00	.6811E-04
73	.1001E+01	.1001E+01	.1000E+01	.1334E-03	.1001E+01	.9998E+00	.1000E+01	.3500E+01	.1002E+01	-.6787E-01	.7240E-04

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.9767E+02	.9000E+02	.2000E-02	0.	-.2500E+00	-.4442E-10	0.	-.1389E-12	-.3907E+03	.2736E+01
2	.9767E+02	.8600E+02	.2000E-02	.1021E-08	-.2500E+00	.1954E-08	.2104E-05	-.7252E-13	-.3907E+03	.2736E+01
3	.9767E+02	.8200E+02	.2000E-02	-.3577E-07	-.2500E+00	.7595E-08	.2784E-05	-.8133E-14	-.3907E+03	.2745E+01
4	.9767E+02	.7800E+02	.2000E-02	-.4999E-07	-.2500E+00	.2994E-07	-.2421E-06	.3321E-13	-.3907E+03	.2758E+01
5	.9767E+02	.7400E+02	.2000E-02	-.4511E-07	-.2500E+00	.1147E-06	-.4593E-06	-.6779E+01	-.3907E+03	.2736E+01
6	.9781E+02	.7000E+02	.1408E+00	-.5803E-07	-.2500E+00	.4644E-06	-.5543E-06	-.1455E+02	-.3912E+03	.2709E+01
7	.9797E+02	.6600E+02	.2995E+00	-.4691E-07	-.2500E+00	.1982E-05	-.6737E-06	-.1555E+02	-.3919E+03	.2716E+01
8	.9813E+02	.6200E+02	.4582E+00	-.1238E-07	-.2500E+00	.8897E-05	-.2014E-06	-.1557E+02	-.3925E+03	.2733E+01
9	.9831E+02	.5800E+02	.6169E+00	-.5210E-08	-.2500E+00	.4209E-04	.1131E-05	-.1560E+02	-.3932E+03	.2740E+01
10	.9849E+02	.5400E+02	.7756E+00	-.2066E-07	-.2500E+00	.2108E-03	.1110E-05	-.1563E+02	-.3939E+03	.2757E+01
11	.9866E+02	.5000E+02	.9343E+00	-.1191E-07	-.2500E+00	.1127E-02	.1106E-05	-.1566E+02	-.3946E+03	.2776E+01
12	.9881E+02	.4600E+02	.1093E+01	.6060E-07	-.2497E+00	.6603E-02	.2841E-05	-.1568E+02	-.3952E+03	.2801E+01
13	.1145E+03	.4200E+02	.1252E+01	.1214E-06	-.2835E+00	.5599E-01	.9202E-06	-.1590E+02	-.4007E+03	.2839E+01
14	.1324E+03	.3900E+02	.1371E+01	.1017E-06	-.3322E+00	.2873E-01	.7248E-06	-.1575E+02	-.3971E+03	.2883E+01
15	.1649E+03	.3600E+02	.1490E+01	.3723E-07	-.3963E+00	.1230E+00	.4229E-06	-.1239E+02	-.4123E+03	.2934E+01
16	.1990E+03	.3400E+02	.1521E+01	.1440E-07	-.4987E+00	.3990E-01	.2607E-06	-.1198E+02	-.3981E+03	.2960E+01
17	.1987E+03	.3200E+02	.1610E+01	.2017E-07	-.4985E+00	.2590E-01	.1800E-06	-.2282E+02	-.3974E+03	.2936E+01
18	.1986E+03	.3000E+02	.1751E+01	.4871E-08	-.4963E+00	.4694E-01	.7215E-07	-.3207E+02	-.3972E+03	.2906E+01
19	.2024E+03	.2800E+02	.1933E+01	-.2085E-07	-.4869E+00	.1434E+00	.1830E-07	-.3751E+02	-.4047E+03	.2893E+01
20	.3527E+03	.2600E+02	.2121E+01	-.2001E-07	-.6053E+00	.6493E+00	-.9427E-08	-.5004E+02	-.5289E+03	.2895E+01
21	.4457E+03	.2500E+02	.2217E+01	-.1441E-07	-.9435E+00	.5997E+00	-.3055E-08	-.4192E+02	-.4457E+03	.2902E+01
22	.4952E+03	.2400E+02	.2309E+01	-.9830E-08	-.9234E+00	.8337E+00	-.4542E-08	-.4566E+02	-.4950E+03	.2914E+01
23	.6556E+03	.2300E+02	.2401E+01	-.3809E-08	-.8956E+00	.1384E+01	.2075E-09	-.4958E+02	-.6555E+03	.2944E+01
24	.1326E+04	.2200E+02	.2461E+01	.1009E-08	-.1187E+01	.3125E+01	.4864E-07	-.4642E+02	-.9946E+03	.2987E+01
25	.1875E+04	.2150E+02	.2471E+01	-.5373E-09	-.2581E+01	.3935E+01	.6119E-08	-.1492E+02	-.7038E+03	.3015E+01
26	.1943E+04	.2125E+02	.2477E+01	-.1713E-08	-.3952E+01	.2866E+01	.1377E-07	-.7157E+01	-.4865E+03	.3014E+01
27	.1823E+04	.2100E+02	.2478E+01	-.8969E-10	-.4022E+01	.2169E+01	-.2983E-07	.5261E+01	-.4560E+03	.3037E+01
28	.1750E+04	.2075E+02	.2471E+01	.3177E-08	-.4052E+01	.1670E+01	.5581E-07	.1448E+02	-.4378E+03	.3039E+01
29	.1680E+04	.2050E+02	.2462E+01	.1949E-08	-.4030E+01	.1209E+01	.9426E-07	.1166E+02	-.4205E+03	.3001E+01
30	.1622E+04	.2025E+02	.2457E+01	.3985E-09	-.4009E+01	.6621E+00	.1310E-06	.9667E+01	-.4063E+03	.2979E+01
31	.1060E+04	.2000E+02	.2450E+01	.2247E-08	-.2654E+01	-.3256E+00	.2197E-06	.1666E+02	-.3975E+03	.3011E+01
32	.8785E+03	.1950E+02	.2426E+01	.5939E-08	-.2049E+01	.7986E+00	.2209E-06	.2600E+02	-.4388E+03	.3050E+01
33	.6046E+03	.1900E+02	.2391E+01	.4727E-08	-.1381E+01	.6238E+00	-.1134E-06	.3372E+02	-.4532E+03	.3072E+01
34	.8916E+03	.1800E+02	.2314E+01	.1562E-08	-.1162E+01	.1927E+01	.8015E-07	.7485E+02	-.8912E+03	.3058E+01
35	.1042E+04	.1700E+02	.2223E+01	-.9494E-09	-.1207E+01	.2340E+01	.5090E-08	.9231E+02	-.1042E+04	.3017E+01
36	.1157E+04	.1600E+02	.2137E+01	-.9578E-08	-.1229E+01	.2663E+01	-.1406E-07	.9958E+02	-.1157E+04	.2964E+01
37	.8538E+03	.1500E+02	.2051E+01	-.8775E-08	-.8411E+00	.2003E+01	.1675E-07	.1115E+03	-.1281E+04	.2928E+01
38	.1059E+04	.1300E+02	.1876E+01	.1962E-07	-.7289E+00	.2615E+01	-.8712E-08	.1853E+03	-.2117E+04	.2905E+01
39	.1079E+04	.1100E+02	.1701E+01	.4619E-07	-.8046E+00	.2666E+01	-.2620E-08	.1652E+03	-.1888E+04	.2878E+01
40	.9598E+03	.9502E+01	.1570E+01	.5647E-07	-.8706E+00	.2333E+01	.1014E-07	.1259E+03	-.1440E+04	.2852E+01
41	.8697E+03	.8002E+01	.1438E+01	.4002E-07	-.8503E+00	.2100E+01	-.1086E-07	.1141E+03	-.1305E+04	.2839E+01
42	.9980E+03	.6502E+01	.1307E+01	.1276E-07	-.1010E+01	.2406E+01	.4090E-07	.1091E+03	-.1248E+04	.2837E+01
43	.1051E+04	.5502E+01	.1220E+01	.1515E-07	-.1216E+01	.2473E+01	.8146E-08	.9189E+02	-.1051E+04	.2827E+01
44	.9759E+03	.4502E+01	.1132E+01	.2464E-07	-.1198E+01	.2265E+01	.1785E-06	.8535E+02	-.9759E+03	.2797E+01
45	.1264E+04	.3502E+01	.1045E+01	.4569E-07	-.1588E+01	.2916E+01	.9859E-06	.8294E+02	-.9479E+03	.2738E+01
46	.1626E+04	.3002E+01	.1001E+01	-.8255E-07	-.2314E+01	.3602E+01	-.2018E-06	.7097E+02	-.8132E+03	.2652E+01
47	.1481E+04	.2502E+01	.9576E+00	.1266E-06	-.2276E+01	.3171E+01	.3461E-06	.6455E+02	-.7407E+03	.2798E+01
48	.1996E+04	.2002E+01	.9139E+00	.2132E-07	-.3219E+01	.4159E+01	.6581E-06	.6089E+02	-.6987E+03	.2723E+01
49	.3088E+04	.1801E+01	.8966E+00	-.2553E-07	-.5520E+01	.6013E+01	.5777E-07	.5366E+02	-.6179E+03	.2596E+01
50	.2815E+04	.1601E+01	.8792E+00	.4570E-07	-.5441E+01	.5106E+01	-.1742E-06	.4897E+02	-.5632E+03	.2388E+01
51	.2618E+04	.1401E+01	.8618E+00	.4821E-07	-.5382E+01	.4412E+01	-.5041E-06	.4559E+02	-.5238E+03	.2165E+01
52	.2469E+04	.1201E+01	.8443E+00	.1199E-06	-.5333E+01	.3855E+01	-.2550E-06	.4303E+02	-.4941E+03	.1775E+01
53	.3511E+04	.1001E+01	.8269E+00	-.2342E-07	-.7898E+01	.5062E+01	-.2307E-07	-.1451E+03	-.3515E+03	.1155E+01
54	.8183E+04	.1001E+01	.9270E+00	-.3941E-08	-.1947E+02	.1023E+02	-.1553E-07	-.7978E+03	-.1300E+01	.1140E+01
55	.7617E+04	.1001E+01	.1022E+01	.3281E-08	-.1911E+02	.7818E+01	.3483E-07	-.9710E+03	-.1334E+01	.1112E+01
56	.5259E+04	.1001E+01	.1182E+01	.9278E-07	-.1382E+02	.4155E+01	.2315E-06	-.1263E+04	-.9558E+00	.1039E+01
57	.3408E+04	.1000E+01	.1502E+01	-.1740E-06	-.9324E+01	.1866E+01	-.6313E-07	-.1823E+04	-.5785E+00	.1088E+01
58	.2345E+04	.1000E+01	.2252E+01	.1429E-07	-.6648E+01	.7996E+00	.1538E-08	-.2931E+04	-.1470E+00	.1000E+01
59	.1398E+04	.1000E+01	.4002E+01	-.4895E-08	-.3988E+01	.5335E+00	.1761E-09	-.2621E+04	.1212E+00	.9999E+00
60	.8749E+03	.1000E+01	.6002E+01	-.5339E-10	-.2453E+01	.5002E+00	.2762E-09	-.1750E+04	.1611E+00	.1000E+01

61	.5740E+03	.1001E+01	.8002E+01	-.2135E-11	-.1538E+01	.5002E+00	.9722E-10	-.1148E+04	.1495E+00	.1000E+01
62	.3953E+03	.1001E+01	.1000E+02	-.5463E-11	-.9717E+00	.5002E+00	.2255E-10	-.7905E+03	.1216E+00	.1000E+01
63	.2955E+03	.1001E+01	.1200E+02	-.2890E-11	-.6300E+00	.5002E+00	-.9676E-11	-.5909E+03	.8800E-01	.1000E+01
64	.2424E+03	.1002E+01	.1400E+02	-.9128E-12	-.4215E+00	.5001E+00	-.4643E-11	-.4846E+03	.5562E-01	.1000E+01
65	.2162E+03	.1002E+01	.1600E+02	.1532E-12	-.2982E+00	.5001E+00	-.9873E-12	-.4324E+03	.2743E-01	.1000E+01
66	.1842E+03	.1002E+01	.1800E+02	.5243E-12	-.2273E+00	.4445E+00	.5413E-11	-.4143E+03	.2205E-01	.1000E+01
67	.1512E+03	.1002E+01	.2050E+02	.2070E-11	-.7818E-01	.4001E+00	-.7218E-11	-.3779E+03	.1505E-01	.1000E+01
68	.1632E+03	.1002E+01	.2300E+02	.1432E-11	.1464E-01	.4397E+00	-.3462E-09	-.3671E+03	.1191E+03	.1000E+01
69	.1874E+03	.2462E+01	.2500E+02	-.3214E-11	.3972E-01	.5046E+00	-.1215E-08	-.3373E+03	.4329E+03	.1000E+01
70	.2005E+03	.5622E+01	.2660E+02	-.1624E-09	.3739E-01	.5409E+00	-.4602E-09	-.3148E+03	.8092E+03	.1000E+01
71	.1788E+03	.1053E+02	.2814E+02	-.1005E-08	.6495E-01	.4784E+00	.2154E-09	-.2235E+03	.1107E+04	.1000E+01
72	.1144E+03	.1800E+02	.2910E+02	-.3796E-08	.7842E-01	.2969E+00	-.1026E-07	-.1063E+03	.1056E+04	.1000E+01
73	.2946E+02	.2900E+02	.3000E+02	0.	.7836E-01	0.	0.	-.2557E+02	.3760E+03	.1000E+01

SECOND INDEX= 36

1ST	P/PINF	RHO/RINF	U/QINF	V/QINF	ET/ETINF	S/SINF	HT/HTINF	MACH	UBAR/QINF	VBAR/QINF	CP
1	.9823E+00	.3591E+00	0.	0.	.2217E+00	.4121E+01	.7930E+00	0.	0.	0.	-.2060E-02
2	.9824E+00	.3591E+00	0.	0.	.2218E+00	.4121E+01	.7930E+00	0.	0.	0.	-.2055E-02
3	.9819E+00	.3577E+00	0.	0.	.2216E+00	.4142E+01	.7957E+00	0.	0.	0.	-.2112E-02
4	.9688E+00	.3512E+00	0.	0.	.2187E+00	.4192E+01	.7995E+00	0.	0.	0.	-.3641E-02
5	.9084E+00	.3320E+00	0.	0.	.2051E+00	.4253E+01	.7930E+00	0.	0.	0.	-.1068E-01
6	.8465E+00	.3124E+00	0.	0.	.1911E+00	.4315E+01	.7854E+00	0.	0.	0.	-.1790E-01
7	.8257E+00	.3040E+00	0.	0.	.1864E+00	.4373E+01	.7872E+00	0.	0.	0.	-.2033E-01
8	.8226E+00	.3010E+00	0.	0.	.1857E+00	.4418E+01	.7922E+00	0.	0.	0.	-.2069E-01
9	.8176E+00	.2984E+00	0.	0.	.1846E+00	.4445E+01	.7942E+00	0.	0.	0.	-.2127E-01
10	.8207E+00	.2976E+00	0.	0.	.1853E+00	.4477E+01	.7993E+00	0.	0.	0.	-.2091E-01
11	.8213E+00	.2959E+00	0.	0.	.1854E+00	.4518E+01	.8046E+00	0.	0.	0.	-.2083E-01
12	.8212E+00	.2932E+00	0.	0.	.1854E+00	.4576E+01	.8119E+00	0.	0.	0.	-.2085E-01
13	.8253E+00	.2907E+00	0.	0.	.1863E+00	.4654E+01	.8230E+00	0.	0.	0.	-.2037E-01
14	.8258E+00	.2865E+00	0.	0.	.1864E+00	.4752E+01	.8355E+00	0.	0.	0.	-.2032E-01
15	.8243E+00	.2810E+00	0.	0.	.1861E+00	.4874E+01	.8503E+00	0.	0.	0.	-.2049E-01
16	.7902E+00	.2670E+00	0.	0.	.1784E+00	.5019E+01	.8578E+00	0.	0.	0.	-.2447E-01
17	.7128E+00	.2428E+00	0.	0.	.1609E+00	.5173E+01	.8511E+00	0.	0.	0.	-.3349E-01
18	.6440E+00	.2216E+00	0.	0.	.1454E+00	.5310E+01	.8423E+00	0.	0.	0.	-.4152E-01
19	.6053E+00	.2093E+00	0.	0.	.1366E+00	.5408E+01	.8385E+00	0.	0.	0.	-.4603E-01
20	.5942E+00	.2052E+00	0.	0.	.1341E+00	.5455E+01	.8391E+00	0.	0.	0.	-.4733E-01
21	.6051E+00	.2085E+00	0.	0.	.1366E+00	.5433E+01	.8412E+00	0.	0.	0.	-.4605E-01
22	.6372E+00	.2186E+00	0.	0.	.1438E+00	.5354E+01	.8447E+00	0.	0.	0.	-.4231E-01
23	.7001E+00	.2378E+00	0.	0.	.1580E+00	.5228E+01	.8532E+00	0.	0.	0.	-.3497E-01
24	.7941E+00	.2659E+00	0.	0.	.1792E+00	.5073E+01	.8656E+00	0.	0.	0.	-.2402E-01
25	.8933E+00	.2964E+00	0.	0.	.2017E+00	.4903E+01	.8737E+00	0.	0.	0.	-.1244E-01
26	.9726E+00	.3228E+00	0.	0.	.2196E+00	.4737E+01	.8734E+00	0.	0.	0.	-.3190E-02
27	.1078E+01	.3551E+00	0.	0.	.2434E+00	.4594E+01	.8800E+00	0.	0.	0.	.9117E-02
28	.1147E+01	.3775E+00	0.	0.	.2589E+00	.4487E+01	.8808E+00	0.	0.	0.	.1715E-01
29	.1144E+01	.3811E+00	0.	0.	.2582E+00	.4415E+01	.8699E+00	0.	0.	0.	.1676E-01
30	.1151E+01	.3863E+00	0.	0.	.2598E+00	.4359E+01	.8635E+00	0.	0.	0.	.1758E-01
31	.1230E+01	.4086E+00	0.	0.	.2778E+00	.4307E+01	.8728E+00	0.	0.	0.	.2687E-01
32	.1335E+01	.4378E+00	0.	0.	.3014E+00	.4244E+01	.8841E+00	0.	0.	0.	.3911E-01
33	.1434E+01	.4667E+00	0.	0.	.3236E+00	.4167E+01	.8904E+00	0.	0.	0.	.5057E-01
34	.1489E+01	.4869E+00	0.	0.	.3361E+00	.4078E+01	.8864E+00	0.	0.	0.	.5703E-01
35	.1509E+01	.5003E+00	0.	0.	.3407E+00	.3980E+01	.8745E+00	0.	0.	0.	.5939E-01
36	.1503E+01	.5072E+00	0.	0.	.3394E+00	.3889E+01	.8592E+00	0.	0.	0.	.5870E-01
37	.1507E+01	.5147E+00	0.	0.	.3402E+00	.3819E+01	.8487E+00	0.	0.	0.	.5913E-01
38	.1516E+01	.5219E+00	0.	0.	.3422E+00	.3768E+01	.8420E+00	0.	0.	0.	.6019E-01
39	.1519E+01	.5277E+00	0.	0.	.3428E+00	.3716E+01	.8340E+00	0.	0.	0.	.6047E-01
40	.1525E+01	.5346E+00	0.	0.	.3442E+00	.3664E+01	.8266E+00	0.	0.	0.	.6120E-01
41	.1536E+01	.5412E+00	0.	0.	.3468E+00	.3629E+01	.8228E+00	0.	0.	0.	.6254E-01
42	.1555E+01	.5482E+00	0.	0.	.3511E+00	.3608E+01	.8223E+00	0.	0.	0.	.6475E-01
43	.1561E+01	.5520E+00	0.	0.	.3523E+00	.3585E+01	.8194E+00	0.	0.	0.	.6537E-01
44	.1556E+01	.5562E+00	0.	0.	.3512E+00	.3537E+01	.8108E+00	0.	0.	0.	.6483E-01
45	.1539E+01	.5619E+00	0.	0.	.3473E+00	.3449E+01	.7937E+00	0.	0.	0.	.6282E-01
46	.1540E+01	.5809E+00	0.	0.	.3477E+00	.3295E+01	.7685E+00	0.	0.	0.	.6300E-01
47	.1542E+01	.5750E+00	0.	0.	.3481E+00	.3346E+01	.7773E+00	0.	0.	0.	.6322E-01
48	.1550E+01	.5963E+00	0.	0.	.3498E+00	.3196E+01	.7533E+00	0.	0.	0.	.6411E-01
49	.1569E+01	.6298E+00	0.	0.	.3542E+00	.2997E+01	.7220E+00	0.	0.	0.	.6635E-01

50	.1563E+01	.6791E+00	0.	0.	.3528E+00	.2687E+01	.6671E+00	0.	0.	0.	.6563E-01		
51	.1556E+01	.7403E+00	0.	0.	.3513E+00	.2371E+01	.6094E+00	0.	0.	0.	.6488E-01		
52	.1630E+01	.9096E+00	0.	0.	.3680E+00	.1861E+01	.5195E+00	0.	0.	0.	.7350E-01		
53	.1505E+01	.1337E+01	.9705E+00	.8092E-01	.1321E+01	.1003E+01	.1000E+01	.3212E+01	-.7861E+00	-.4521E+00	.5891E-01		
54	.1505E+01	.1337E+01	.9705E+00	.8092E-01	.1321E+01	.1003E+01	.1000E+01	.3212E+01	-.1768E+01	-.2089E+01	.5891E-01		
55	.1505E+01	.1337E+01	.9705E+00	.8092E-01	.1321E+01	.1003E+01	.1000E+01	.3212E+01	-.2294E+01	-.2566E+01	.5891E-01		
56	.1505E+01	.1337E+01	.9705E+00	.8092E-01	.1321E+01	.1003E+01	.1000E+01	.3212E+01	-.3150E+01	-.3374E+01	.5891E-01		
57	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5006E+01	-.5105E+01	-.2900E-14		
58	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.8344E+01	-.8403E+01	.1044E-13		
59	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.7505E+01	-.7571E+01	-.5800E-15		
60	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.4919E+01	-.5020E+01	-.7059E-12		
61	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.3083E+01	.3241E+01	.8701E-14		
62	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1946E+01	-.2188E+01	.1218E-13		
63	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1261E+01	-.1610E+01	.1972E-13		
64	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.8436E+00	-.1308E+01	-.2900E-14		
65	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5969E+00	-.1165E+01	-.6380E-14		
66	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.5119E+00	-.1123E+01	.2900E-14		
67	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	-.1956E+00	-.1019E+01	.2228E-11		
68	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.3460E-01	-.9899E+00	.4760E-11		
69	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1163E+00	-.9111E+00	.6380E-14		
70	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1617E+00	-.8513E+00	.1508E-11		
71	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.4099E+00	-.6037E+00	.4394E-11		
72	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.7274E+00	-.2857E+00	.1683E-11		
73	.1000E+01	.1000E+01	.1000E+01	0.	.1000E+01	.1000E+01	.1000E+01	.3500E+01	.1002E+01	-.6816E-01	.1679E-11		

1ST	JACOBIAN	X	Y	DXI/DT	DXI/DX	DXI/DY	DETA/DT	DETA/DX	DETA/DY	EI/EIINF
1	.1736E+03	.9000E+02	0.	0.	-.2500E+00	-.1578E-09	0.	0.	-.6942E+03	.2736E+01
2	.1736E+03	.8600E+02	0.	0.	-.2500E+00	.1578E-08	0.	0.	-.6942E+03	.2736E+01
3	.1736E+03	.8200E+02	0.	0.	-.2500E+00	.7261E-08	0.	0.	-.6942E+03	.2745E+01
4	.1736E+03	.7800E+02	0.	0.	-.2500E+00	.2952E-07	0.	0.	-.6942E+03	.2758E+01
5	.1736E+03	.7400E+02	0.	0.	-.2500E+00	.1148E-06	0.	-.1204E+02	-.6942E+03	.2736E+01
6	.1731E+03	.7000E+02	.1388E+00	0.	-.2500E+00	.4642E-06	0.	-.2575E+02	-.6925E+03	.2710E+01
7	.1726E+03	.6600E+02	.2975E+00	0.	-.2500E+00	.1982E-05	0.	-.2740E+02	-.6905E+03	.2716E+01
8	.1721E+03	.6200E+02	.4562E+00	0.	-.2500E+00	.8897E-05	0.	-.2732E+02	-.6885E+03	.2733E+01
9	.1716E+03	.5800E+02	.6149E+00	0.	-.2500E+00	.4209E-04	0.	-.2723E+02	-.6863E+03	.2740E+01
10	.1710E+03	.5400E+02	.7736E+00	0.	-.2500E+00	.2108E-03	0.	-.2714E+02	-.6841E+03	.2757E+01
11	.1705E+03	.5000E+02	.9323E+00	0.	-.2500E+00	.1127E-02	0.	-.2705E+02	-.6818E+03	.2776E+01
12	.1698E+03	.4600E+02	.1091E+01	0.	-.2497E+00	.6604E-02	0.	-.2694E+02	-.6791E+03	.2801E+01
13	.1957E+03	.4200E+02	.1250E+01	0.	-.2835E+00	.5608E-01	0.	-.2718E+02	-.6850E+03	.2839E+01
14	.2251E+03	.3900E+02	.1369E+01	0.	-.3322E+00	.2874E-01	0.	-.2679E+02	-.6754E+03	.2882E+01
15	.2796E+03	.3600E+02	.1488E+01	0.	-.3963E+00	.1233E+00	0.	-.2101E+02	-.6989E+03	.2933E+01
16	.3367E+03	.3400E+02	.1519E+01	0.	-.4988E+00	.3990E-01	0.	-.2026E-02	-.6735E+03	.2960E+01
17	.3355E+03	.3200E+02	.1608E+01	0.	-.4985E+00	.2591E-01	0.	-.3854E+02	-.6711E+03	.2936E+01
18	.3344E+03	.3000E+02	.1749E+01	0.	-.4962E+00	.4695E-01	0.	-.5401E+02	-.6689E+03	.2906E+01
19	.3399E+03	.2800E+02	.1931E+01	0.	-.4867E+00	.1435E+00	0.	-.6311E+02	-.6799E+03	.2893E+01
20	.5962E+03	.2600E+02	.2120E+01	0.	-.6050E+00	.6511E+00	0.	-.8466E+02	-.8943E+03	.2895E+01
21	.7496E+03	.2500E+02	.2215E+01	0.	-.9436E+00	.5999E+00	0.	-.7046E+02	-.7496E+03	.2902E+01
22	.8350E+03	.2400E+02	.2308E+01	0.	-.9228E+00	.8349E+00	0.	-.7724E+02	-.8350E+03	.2914E+01
23	.1104E+04	.2300E+02	.2400E+01	0.	-.8946E+00	.1387E+01	0.	-.8390E+02	-.1104E+04	.2944E+01
24	.2245E+04	.2200E+02	.2460E+01	0.	-.1187E+01	.3137E+01	0.	-.7856E+02	-.1684E+04	.2986E+01
25	.3167E+04	.2150E+02	.2470E+01	0.	-.2588E+01	.3948E+01	0.	-.2375E+02	-.1188E+04	.3014E+01
26	.3262E+04	.2125E+02	.2475E+01	0.	-.3962E+01	.2860E+01	0.	-.1093E+02	-.8156E+03	.3013E+01
27	.3051E+04	.2100E+02	.2477E+01	0.	-.4026E+01	.2163E+01	0.	.9154E+01	-.7620E+03	.3036E+01
28	.2926E+04	.2075E+02	.2469E+01	0.	-.4056E+01	.1665E+01	0.	.2443E+02	-.7315E+03	.3039E+01
29	.2808E+04	.2050E+02	.2460E+01	0.	-.4034E+01	.1204E+01	0.	.1966E+02	-.7021E+03	.3001E+01
30	.2712E+04	.2025E+02	.2455E+01	0.	-.4016E+01	.6559E+00	0.	.1627E+02	-.6781E+03	.2979E+01
31	.1769E+04	.2000E+02	.2448E+01	0.	-.2653E+01	-.3382E+00	0.	.2769E+02	-.6635E+03	.3011E+01
32	.1468E+04	.1950E+02	.2424E+01	0.	-.2047E+01	.7991E+00	0.	.4331E+02	-.7340E+03	.3050E+01
33	.1013E+04	.1900E+02	.2389E+01	0.	-.1379E+01	.6229E+00	0.	.5606E+02	-.7596E+03	.3072E+01
34	.1512E+04	.1800E+02	.2313E+01	0.	-.1161E+01	.1932E+01	0.	.1263E+03	-.1512E+04	.3058E+01
35	.1785E+04	.1700E+02	.2222E+01	0.	-.1207E+01	.2343E+01	0.	.1580E+03	-.1785E+04	.3017E+01
36	.2001E+04	.1600E+02	.2136E+01	0.	-.1229E+01	.2666E+01	0.	.1721E+03	-.2001E+04	.2964E+01
37	.1491E+04	.1500E+02	.2050E+01	0.	-.8410E+00	.2005E+01	0.	.1945E+03	-.2236E+04	.2928E+01
38	.1889E+04	.1300E+02	.1875E+01	0.	-.7289E+00	.2617E+01	0.	.3306E+03	-.3779E+04	.2905E+01
39	.1962E+04	.1100E+02	.1700E+01	0.	-.8048E+00	.2666E+01	0.	.3005E+03	-.3434E+04	.2877E+01

40	.1766E+04	.9500E+01	.1569E+01	0.	-.8707E+00	.2332E+01	0.	.2317E+03	-.2648E+04	.2852E+01
41	.1617E+04	.8000E+01	.1438E+01	0.	-.8503E+00	.2099E+01	0.	.2122E+03	-.2426E+04	.2839E+01
42	.1875E+04	.6500E+01	.1306E+01	0.	-.1010E+01	.2405E+01	0.	.2051E+03	-.2344E+04	.2837E+01
43	.1983E+04	.5500E+01	.1219E+01	0.	-.1216E+01	.2473E+01	0.	.1735E+03	-.1983E+04	.2827E+01
44	.1848E+04	.4500E+01	.1131E+01	0.	-.1198E+01	.2264E+01	0.	.1617E+03	-.1848E+04	.2797E+01
45	.2403E+04	.3500E+01	.1044E+01	0.	-.1589E+01	.2916E+01	0.	.1579E+03	-.1802E+04	.2738E+01
46	.3094E+04	.3000E+01	.1000E+01	0.	-.2315E+01	.3602E+01	0.	.1354E+03	-.1547E+04	.2651E+01
47	.2819E+04	.2500E+01	.9564E+00	0.	-.2277E+01	.3171E+01	0.	.1231E+03	-.1410E+04	.2682E+01
48	.3804E+04	.2000E+01	.9127E+00	0.	-.3221E+01	.4161E+01	0.	.1164E+03	-.1331E+04	.2599E+01
49	.5895E+04	.1800E+01	.8952E+00	0.	-.5527E+01	.6018E+01	0.	.1032E+03	-.1179E+04	.2491E+01
50	.5385E+04	.1600E+01	.8777E+00	0.	-.5447E+01	.5109E+01	0.	.9424E+02	-.1077E+04	.2301E+01
51	.5024E+04	.1400E+01	.8602E+00	0.	-.5386E+01	.4414E+01	0.	.8791E+02	-.1005E+04	.2102E+01
52	.4758E+04	.1200E+01	.8427E+00	0.	-.5337E+01	.3856E+01	0.	.8326E+02	-.9516E+03	.1792E+01
53	.6806E+04	.1000E+01	.8252E+00	0.	-.7910E+01	.5067E+01	0.	-.2807E+03	-.6806E+03	.1126E+01
54	.1599E+05	.1000E+01	.9252E+00	0.	-.1956E+02	.1027E+02	0.	-.1557E+04	0.	.1126E+01
55	.1497E+05	.1000E+01	.1020E+01	0.	-.1921E+02	.7849E+01	0.	-.1907E+04	0.	.1126E+01
56	.1038E+05	.1000E+01	.1180E+01	0.	-.1387E+02	.4167E+01	0.	-.2492E+04	0.	.1126E+01
57	.6764E+04	.1000E+01	.1500E+01	0.	-.9353E+01	.1869E+01	0.	-.3619E+04	0.	.1000E+01
58	.4674E+04	.1000E+01	.2250E+01	0.	-.6675E+01	.8000E+00	0.	-.5843E+04	0.	.1000E+01
59	.2785E+04	.1000E+01	.4000E+01	0.	-.4003E+01	.5333E+00	0.	-.5221E+04	0.	.1000E+01
60	.1740E+04	.1000E+01	.6000E+01	0.	-.2460E+01	.5000E+00	0.	-.3480E+04	0.	.1000E+01
61	.1141E+04	.1000E+01	.8000E+01	0.	-.1541E+01	.5000E+00	0.	-.2282E+04	0.	.1000E+01
62	.7867E+03	.1000E+01	.1000E+02	0.	-.9731E+00	.5000E+00	0.	-.1573E+04	0.	.1000E+01
63	.5898E+03	.1000E+01	.1200E+02	0.	-.6307E+00	.5000E+00	0.	-.1180E+04	0.	.1000E+01
64	.4860E+03	.1000E+01	.1400E+02	0.	-.4218E+00	.5000E+00	0.	-.9721E+03	0.	.1000E+01
65	.4364E+03	.1000E+01	.1600E+02	0.	-.2985E+00	.5000E+00	0.	-.8729E+03	0.	.1000E+01
66	.3746E+03	.1000E+01	.1800E+02	0.	-.2275E+00	.4444E+00	0.	-.8429E+03	0.	.1000E+01
67	.3098E+03	.1000E+01	.2050E+02	0.	-.7825E-01	.4000E+00	0.	-.7745E+03	0.	.1000E+01
68	.3375E+03	.1000E+01	.2300E+02	0.	.1463E-01	.4397E+00	0.	-.7593E+03	.2464E+03	.1000E+01
69	.3892E+03	.2460E+01	.2500E+02	0.	.3970E-01	.5046E+00	0.	-.7006E+03	.8992E+03	.1000E+01
70	.4159E+03	.5620E+01	.2660E+02	0.	.3734E-01	.5410E+00	0.	-.6529E+03	.1678E+04	.1000E+01
71	.3682E+03	.1053E+02	.2814E+02	0.	.6490E-01	.4786E+00	0.	-.4603E+03	.2279E+04	.1000E+01
72	.2314E+03	.1800E+02	.2910E+02	0.	.7837E-01	.2971E+00	0.	-.2152E+03	.2137E+04	.1000E+01
73	.5845E+02	.2900E+02	.3000E+02	0.	.7834E-01	0.	0.	-.5085E+02	.7461E+03	.1000E+01

J,X,Y,(Q ,N=1,4), P/PST AT K = 1

1	.90000E+02	.86000E+01	.98089E+00	.34321E+01	0.	.77453E+01	.12783E-01
2	.86000E+02	.86000E+01	.98071E+00	.34314E+01	-.18050E-01	.77419E+01	.12765E-01
3	.82000E+02	.86000E+01	.97863E+00	.34240E+01	-.19944E-01	.77233E+01	.12725E-01
4	.78000E+02	.86000E+01	.97388E+00	.34072E+01	-.24264E-01	.76825E+01	.12642E-01
5	.74000E+02	.86000E+01	.96635E+00	.33808E+01	-.31109E-01	.76185E+01	.12510E-01
6	.70000E+02	.84600E+01	.95631E+00	.33458E+01	-.40244E-01	.75337E+01	.12334E-01
7	.66000E+02	.83000E+01	.94457E+00	.33050E+01	-.50975E-01	.74352E+01	.12127E-01
8	.62000E+02	.81400E+01	.93266E+00	.32641E+01	-.62010E-01	.73364E+01	.11914E-01
9	.58000E+02	.79800E+01	.92276E+00	.32307E+01	-.71477E-01	.72564E+01	.11734E-01
10	.54000E+02	.78200E+01	.91745E+00	.32142E+01	-.76996E-01	.72181E+01	.11635E-01
11	.50000E+02	.76700E+01	.91947E+00	.32242E+01	-.75846E-01	.72454E+01	.11670E-01
12	.46000E+02	.75070E+01	.93118E+00	.32688E+01	-.65287E-01	.73589E+01	.11889E-01
13	.42000E+02	.73480E+01	.95413E+00	.33529E+01	-.43053E-01	.75712E+01	.12328E-01
14	.39000E+02	.72300E+01	.98859E+00	.34764E+01	-.80027E-02	.78822E+01	.12995E-01
15	.36000E+02	.71100E+01	.10333E+01	.36335E+01	.39266E-01	.82773E+01	.13864E-01
16	.34000E+02	.71100E+01	.10857E+01	.38139E+01	.96266E-01	.87294E+01	.14877E-01
17	.32000E+02	.71100E+01	.11419E+01	.40035E+01	.15853E+00	.92014E+01	.15950E-01
18	.30000E+02	.71100E+01	.11973E+01	.41867E+01	.22058E+00	.96544E+01	.16990E-01
19	.28000E+02	.71100E+01	.12467E+01	.43470E+01	.27596E+00	.10046E+02	.17896E-01
20	.26000E+02	.71100E+01	.12846E+01	.44675E+01	.31802E+00	.10336E+02	.18567E-01
21	.25000E+02	.71100E+01	.13059E+01	.45323E+01	.34034E+00	.10486E+02	.18916E-01
22	.24000E+02	.71100E+01	.13105E+01	.45439E+01	.34323E+00	.10503E+02	.18949E-01
23	.23750E+02	.71100E+01	.13030E+01	.45178E+01	.33265E+00	.10431E+02	.18766E-01
24	.23500E+02	.71100E+01	.12942E+01	.44907E+01	.32181E+00	.10360E+02	.18570E-01
25	.23250E+02	.71080E+01	.12890E+01	.44758E+01	.31577E+00	.10322E+02	.18450E-01
26	.23000E+02	.71050E+01	.12874E+01	.44716E+01	.31390E+00	.10311E+02	.18405E-01
27	.22750E+02	.71020E+01	.12878E+01	.44725E+01	.31403E+00	.10311E+02	.18401E-01
28	.22500E+02	.71000E+01	.12888E+01	.44745E+01	.31457E+00	.10314E+02	.18412E-01
29	.22250E+02	.70900E+01	.12897E+01	.44766E+01	.31501E+00	.10317E+02	.18425E-01
30	.22000E+02	.70780E+01	.12905E+01	.44792E+01	.31530E+00	.10323E+02	.18435E-01
31	.21750E+02	.70700E+01	.12911E+01	.44814E+01	.31528E+00	.10327E+02	.18440E-01
32	.21500E+02	.70470E+01	.12917E+01	.44841E+01	.31503E+00	.10333E+02	.18441E-01
33	.21250E+02	.70280E+01	.12924E+01	.44876E+01	.31458E+00	.10341E+02	.18439E-01
34	.21000E+02	.70100E+01	.12927E+01	.44898E+01	.31359E+00	.10346E+02	.18431E-01
35	.20750E+02	.69870E+01	.12926E+01	.44907E+01	.31206E+00	.10347E+02	.18419E-01
36	.20500E+02	.69650E+01	.12921E+01	.44902E+01	.31001E+00	.10346E+02	.18402E-01
37	.20250E+02	.69400E+01	.12912E+01	.44883E+01	.30747E+00	.10341E+02	.18381E-01
38	.20000E+02	.69130E+01	.12900E+01	.44849E+01	.30447E+00	.10332E+02	.18356E-01
39	.19750E+02	.68850E+01	.12882E+01	.44794E+01	.30100E+00	.10319E+02	.18323E-01
40	.19500E+02	.68600E+01	.12855E+01	.44704E+01	.29677E+00	.10297E+02	.18277E-01
41	.19250E+02	.68350E+01	.12813E+01	.44561E+01	.29129E+00	.10261E+02	.18206E-01
42	.19000E+02	.68100E+01	.12748E+01	.44332E+01	.28375E+00	.10205E+02	.18096E-01
43	.18500E+02	.67570E+01	.12644E+01	.43962E+01	.27309E+00	.10114E+02	.17925E-01
44	.18000E+02	.67050E+01	.12505E+01	.43461E+01	.26011E+00	.99907E+01	.17702E-01
45	.17500E+02	.66550E+01	.12347E+01	.42883E+01	.24643E+00	.98479E+01	.17448E-01
46	.17000E+02	.66200E+01	.12188E+01	.42295E+01	.23325E+00	.97034E+01	.17198E-01
47	.16500E+02	.65500E+01	.12066E+01	.41830E+01	.22207E+00	.95928E+01	.17045E-01
48	.16000E+02	.64950E+01	.11951E+01	.41393E+01	.21314E+00	.94857E+01	.16878E-01
49	.15800E+02	.64750E+01	.11893E+01	.41159E+01	.20787E+00	.94252E+01	.16778E-01
50	.15780E+02	.64730E+01	.11898E+01	.41168E+01	.20753E+00	.94233E+01	.16762E-01
51	.15760E+02	.64710E+01	.11912E+01	.41209E+01	.20899E+00	.94274E+01	.16749E-01
52	.15750E+02	.64700E+01	.11866E+01	.41016E+01	.20432E+00	.93804E+01	.16697E-01
53	.15760E+02	.64730E+01	.11845E+01	.40977E+01	.20084E+00	.93707E+01	.16637E-01
54	.15780E+02	.64800E+01	.11835E+01	.40952E+01	.19976E+00	.93649E+01	.16615E-01
55	.15800E+02	.64870E+01	.11823E+01	.40917E+01	.19858E+00	.93560E+01	.16584E-01
56	.16000E+02	.65570E+01	.11793E+01	.40839E+01	.19484E+00	.93371E+01	.16519E-01
57	.16250E+02	.66400E+01	.11751E+01	.40727E+01	.18955E+00	.93083E+01	.16413E-01
58	.16500E+02	.67220E+01	.11676E+01	.40510E+01	.18209E+00	.92520E+01	.16229E-01
59	.16750E+02	.67910E+01	.11583E+01	.40247E+01	.17151E+00	.91873E+01	.16023E-01
60	.17000E+02	.68500E+01	.11446E+01	.39853E+01	.15614E+00	.90925E+01	.15742E-01
61	.17500E+02	.69800E+01	.11260E+01	.39304E+01	.13556E+00	.89718E+01	.15373E-01
62	.18000E+02	.71000E+01	.11037E+01	.38637E+01	.11150E+00	.98034E+01	.14942E-01
63	.18500E+02	.72100E+01	.10792E+01	.37889E+01	.85385E-01	.86262E+01	.14479E-01
64	.19000E+02	.73200E+01	.10543E+01	.37108E+01	.58837E-01	.84415E+01	.14018E-01
65	.19500E+02	.74000E+01	.10317E+01	.36381E+01	.34474E-01	.82684E+01	.13607E-01

66	.20000E+02	.75100E+01	.10137E+01	.35774E+01	.14299E-01	.81221E+01	.13285E-01
67	.21000E+02	.76900E+01	.10021E+01	.35352E+01	.38060E-03	.80176E+01	.13080E-01
68	.22000E+02	.78000E+01	.99737E+00	.35143E+01	-.62602E-02	.79621E+01	.13000E-01
69	.23000E+02	.79300E+01	.99741E+00	.35082E+01	-.74452E-02	.79415E+01	.13007E-01
70	.24000E+02	.80200E+01	.99935E+00	.35087E+01	-.58427E-02	.79369E+01	.13051E-01
71	.25000E+02	.81400E+01	.10011E+01	.35098E+01	-.37156E-02	.79353E+01	.13092E-01
72	.27000E+02	.83100E+01	.10019E+01	.35097E+01	-.24672E-02	.79331E+01	.13114E-01
73	.29000E+02	.84200E+01	.10019E+01	.35097E+01	-.24672E-02	.79350E+01	.13128E-01

J,X,Y,(Q ,N=1,4), P/PST AT K = 36

1	.90000E+02	0.	.35907E+00	0.	0.	.17542E+01	.12879E-01
2	.86000E+02	0.	.35907E+00	0.	0.	.17543E+01	.12880E-01
3	.82000E+02	0.	.35766E+00	0.	0.	.17534E+01	.12873E-01
4	.78000E+02	0.	.35122E+00	0.	0.	.17300E+01	.12702E-01
5	.74000E+02	0.	.33203E+00	0.	0.	.16222E+01	.11910E-01
6	.70000E+02	.13880E+00	.31241E+00	0.	0.	.15116E+01	.11098E-01
7	.66000E+02	.29750E+00	.30401E+00	0.	0.	.14744E+01	.10825E-01
8	.62000E+02	.45620E+00	.30096E+00	0.	0.	.14688E+01	.10784E-01
9	.58000E+02	.61490E+00	.29840E+00	0.	0.	.14601E+01	.10720E-01
10	.54000E+02	.77360E+00	.29763E+00	0.	0.	.14655E+01	.10760E-01
11	.50000E+02	.93230E+00	.29587E+00	0.	0.	.14667E+01	.10769E-01
12	.46000E+02	.10910E+01	.29318E+00	0.	0.	.14664E+01	.10766E-01
13	.42000E+02	.12497E+01	.29068E+00	0.	0.	.14738E+01	.10821E-01
14	.39000E+02	.13687E+01	.28648E+00	0.	0.	.14746E+01	.10826E-01
15	.36000E+02	.14877E+01	.28100E+00	0.	0.	.14720E+01	.10808E-01
16	.34000E+02	.15190E+01	.26700E+00	0.	0.	.14110E+01	.10360E-01
17	.32000E+02	.16080E+01	.24276E+00	0.	0.	.12729E+01	.93457E-02
18	.30000E+02	.17487E+01	.22160E+00	0.	0.	.11499E+01	.84429E-02
19	.28000E+02	.19310E+01	.20926E+00	0.	0.	.10809E+01	.79361E-02
20	.26000E+02	.21200E+01	.20524E+00	0.	0.	.10610E+01	.77902E-02
21	.25000E+02	.22150E+01	.20851E+00	0.	0.	.10805E+01	.79334E-02
22	.24000E+02	.23080E+01	.21864E+00	0.	0.	.11378E+01	.83539E-02
23	.23000E+02	.24000E+01	.23784E+00	0.	0.	.12502E+01	.91792E-02
24	.22000E+02	.24600E+01	.26590E+00	0.	0.	.14180E+01	.10411E-01
25	.21500E+02	.24700E+01	.29635E+00	0.	0.	.15952E+01	.11712E-01
26	.21250E+02	.24750E+01	.32279E+00	0.	0.	.17369E+01	.12752E-01
27	.21000E+02	.24767E+01	.35513E+00	0.	0.	.19253E+01	.14136E-01
28	.20750E+02	.24690E+01	.37747E+00	0.	0.	.20483E+01	.15039E-01
29	.20500E+02	.24600E+01	.38107E+00	0.	0.	.20423E+01	.14995E-01
30	.20250E+02	.24550E+01	.38026E+00	0.	0.	.20549E+01	.15087E-01
31	.20000E+02	.24400E+01	.40865E+00	0.	0.	.21972E+01	.16132E-01
32	.19500E+02	.24237E+01	.43700E+00	0.	0.	.23846E+01	.17508E-01
33	.19000E+02	.23890E+01	.46668E+00	0.	0.	.25601E+01	.18797E-01
34	.18000E+02	.23130E+01	.48692E+00	0.	0.	.26589E+01	.19522E-01
35	.17000E+02	.22220E+01	.50028E+00	0.	0.	.26951E+01	.19786E-01
36	.16000E+02	.21360E+01	.50717E+00	0.	0.	.26846E+01	.19711E-01
37	.15000E+02	.20500E+01	.51469E+00	0.	0.	.26912E+01	.19759E-01
38	.13000E+02	.18751E+01	.52193E+00	0.	0.	.27074E+01	.19878E-01
39	.11000E+02	.17001E+01	.52774E+00	0.	0.	.27117E+01	.19909E-01
40	.95000E+01	.15688E+01	.53465E+00	0.	0.	.27228E+01	.19991E-01
41	.80000E+01	.14376E+01	.54120E+00	0.	0.	.27434E+01	.20142E-01
42	.65000E+01	.13064E+01	.54821E+00	0.	0.	.27772E+01	.20390E-01
43	.55000E+01	.12189E+01	.55205E+00	0.	0.	.27866E+01	.20460E-01
44	.45000E+01	.11314E+01	.55623E+00	0.	0.	.27784E+01	.20399E-01
45	.35000E+01	.10439E+01	.56189E+00	0.	0.	.27476E+01	.20174E-01
46	.30000E+01	.10000E+01	.58093E+00	0.	0.	.27505E+01	.20194E-01
47	.25000E+01	.95640E+00	.57504E+00	0.	0.	.27537E+01	.20218E-01
48	.20000E+01	.91270E+00	.59626E+00	0.	0.	.27673E+01	.20318E-01
49	.18000E+01	.89520E+00	.62982E+00	0.	0.	.28016E+01	.20570E-01
50	.16000E+01	.87770E+00	.67905E+00	0.	0.	.27906E+01	.20489E-01
51	.14000E+01	.86020E+00	.74032E+00	0.	0.	.27792E+01	.20405E-01
52	.12000E+01	.84270E+00	.90962E+00	0.	0.	.29111E+01	.21374E-01
53	.10000E+01	.82520E+00	.13365E+01	.45401E+01	.37856E+00	.10452E+02	.19734E-01
54	.10000E+01	.92520E+00	.13365E+01	.45401E+01	.37856E+00	.10452E+02	.19734E-01
55	.10000E+01	.10200E+01	.13365E+01	.45401E+01	.37856E+00	.10452E+02	.19734E-01
56	.10000E+01	.11800E+01	.13365E+01	.45401E+01	.37856E+00	.10452E+02	.19734E-01
57	.10000E+01	.15000E+01	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
58	.10000E+01	.22500E+01	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
59	.10000E+01	.40000E+01	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
60	.10000E+01	.60000E+01	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
61	.10000E+01	.80000E+01	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
62	.10000E+01	.10000E+02	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
63	.10000E+01	.12000E+02	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
64	.10000E+01	.14000E+02	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
65	.10000E+01	.16000E+02	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01

66	.10000E+01	.18000E+02	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
67	.10000E+01	.20500E+02	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
68	.10000E+01	.23000E+02	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
69	.24600E+01	.25000E+02	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
70	.56200E+01	.26600E+02	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
71	.10530E+02	.28140E+02	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
72	.18000E+02	.29100E+02	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01
73	.29000E+02	.30000E+02	.10000E+01	.35000E+01	0.	.79107E+01	.13111E-01

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Final Report

16. Abstract

In this report the source listing of a computer code for calculating two-dimensional (planar) inlet flow fields in a supersonic free stream including viscous effects is given. A test case illustrating the application of this code to an inlet on an airbreathing missile is also presented.

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